CENSUS OF INDIA 1961

VOLUME IX

MADRAS

PART VI-A-VIII

HANDICRAFTS AND ARTISANS OF MADRAS STATE

GLAZED POTTERY OF KARIGIRI

P. K. NAMBIAR I.A.S.

Superintendent of Census Operations, Madras

AND

P. MURARI I.A.S.

Deputy Superintendent of Census Operations, Madras

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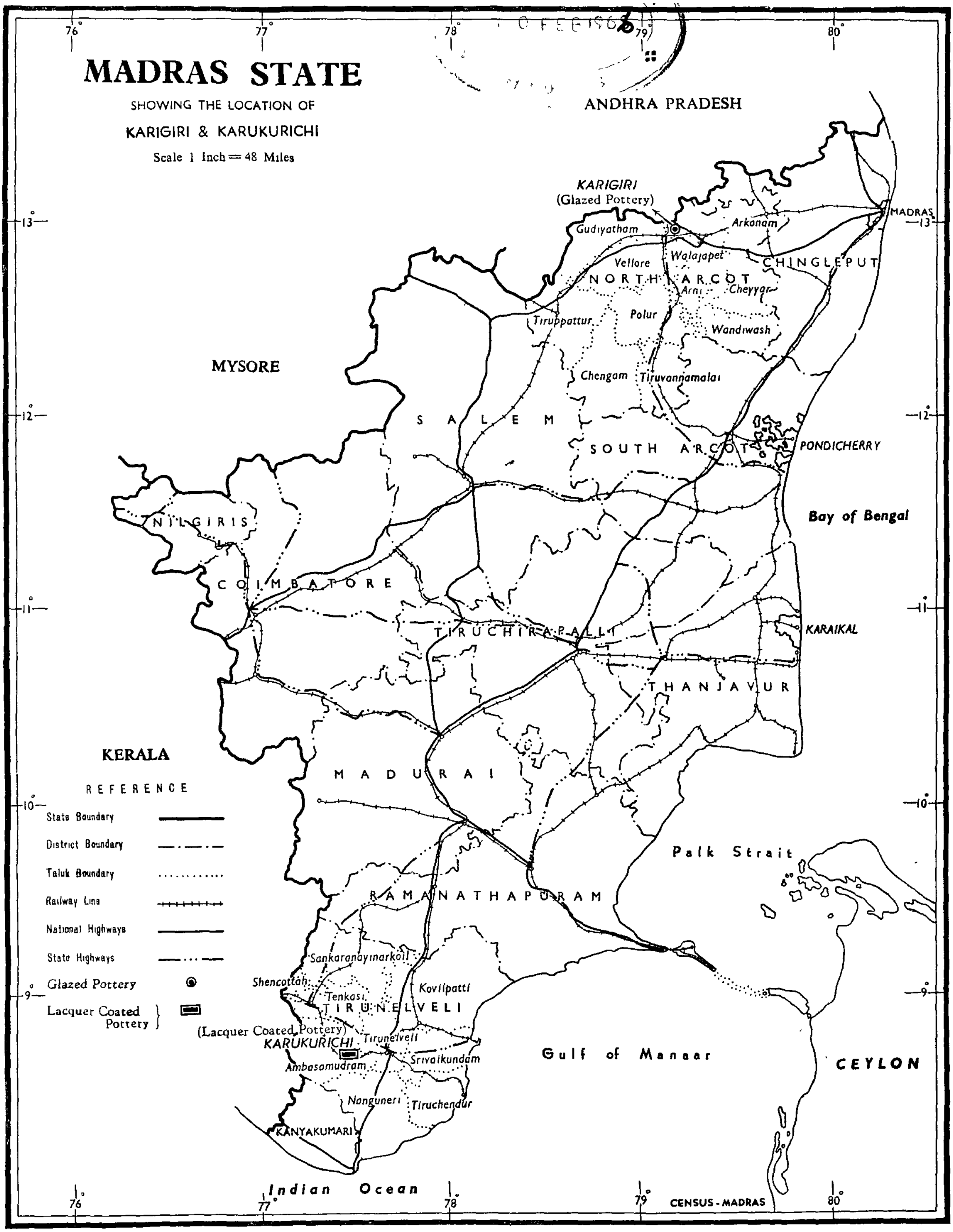
MADRAS STATE
SHOWING THE LOCATION OF
KARIGIRI & KARUKURICHI
Scale 1 Inch = 48 Miles
ANDHRA PRADESH
KARIGIRI
(Glazed Pottery)
Gudiyatham
Arkonam
MADRAS
Walajapet
Vellore
CHINGLEPUT
NORTH ARCOT
Arni
Cheyyar
Polur
Tiruppattur
Wandiwash
MYSORE
Chengam
Tiruvannamalai
SALEM
SOUTH ARCOT
PONDICHERRY
Bay of Bengal
NILGIRIS
COIMBATORE
TIRUCHIRAPALLI
KARAIKAL
THANJAVUR
KERALA
MADURAI
REFERENCE
State Boundary
District Boundary
Taluk Boundary
Railway Line
National Highways
State Highways
Glazed Pottery
Lacquer Coated Pottery
Palk Strait
RAMANATHAPURAM
Sankaranayinarkoil
Shencottah
Kovilpatti
Tenkasi
TIRUNELVELI
(Lacquer Coated Pottery)
KARUKURICHI
Tirunelveli
Srivaikundam
Ambasamudram
Gulf of Manaar
CEYLON
Nanguneri
Tiruchendur
KANYAKUMARI
Indian Ocean
CENSUS-MADRAS
76°
77°
78°
79°
80°
13°
12°
11°
10°
9°

FOREWORD

One of the first steps to be taken in the First Five Year Plan was the establishment of six Boards for the promotion of handicrafts, village and small industries : (1) the Khadi and Village Industries Board (2) The All-India Handicrafts Board (3) The All India Handloom Board (4) The Central Silk Board (5) The Coir Board and (6) The Small Industries Board.

The rapid expansion of the activities of these Boards which concentrated not only on production and techniques, but also on organisation, extension, credit, marketing, and export, consolidated and enlarged the position that the household industries sector had so long enjoyed in the nation's economic life. It was this fact that forced itself upon the preparations for the 1961 Census and demanded that household industry should be separately investigated for a proper accounting of the nation's manpower resources and its specific contribution to the national income. The 1961 Census therefore asked a special series of questions on household industry, input of family and hired labour, and the periods over which household industry is conducted. It was felt, however, that an enumeration of the total number of establishments and their industrial classification would be incomplete without a proper description of what they produce and how they produce. It was important to make an assessment of the limits of rigidity within which traditional skill operates. This could be obtained by studying the caste, occupational, social and economic stratifications, the limitation of credit and marketing facilities, the dominance of custom over contract, the persistence of traditional tools and design forms, the physical limitations of transport, communication and mobility, the inability to adopt new lines or adapt to changing circumstances. It was important also to make an assessment of the limits of flexibility that traditional skill is capable of because the transformation of traditionl skills to modern skills is easier said than done and a thorough study may well reveal that it is perhaps cheaper from the social point of view to develop industrial skills from scratch than to try to graft traditional skill on alien soil. A rather tragic case of failure to make what would on the face of it seem a minor adjustment cast its heavy shadow on the nation when it was discovered that goldsmiths used to working on 22-carat gold all their lives felt sadly helpless when asked to work on 14-carat, so narrow and unadaptable were the limits of their skill and proficiency and so rudimentary the tools and equipment with which they and their forefathers had worked. This fiscal accident revealed that tools are even more important than skills.

An early opportunity was therefore taken in February 1960 to suggest to State Census Superintendents, that the Census provided a unique opportunity for conducting and documenting a survey of this kind. As such a survey was quite outside the usual terms of reference of Census work it was thought prudent cautiously to feel one's way with the thin end of the wedge of what would, it was hoped, prove to be an exciting pursuit. It was therefore considered the wiser course to wait until the State Census Offices felt so interested that they would no longer take the inquiry as an imposition but rather want to do it on their own and ask for the necessary staff and equipment. This office, too, in its turn, could make use of the interval to organise and elaborate the design of inquiry in order to feed the appetite that work in progress would serve to whet. Because it was a labour of love, sought to be unobtrusively thrust on one's colleagues and because the inquiry itself was so vast that normally it would demand in any country as big a set-up if separately established, as the Census organisation itself and that over a much longer period, and because it was almost a pioneer venture, nothing ike it having been undertaken since the 1880's, it was decided to move towards a build-up by stages, to let the inquiry unfold itself only as fast as my colleagues chose to ask for more.

Thus, in the first circular of 18 February 1960, it was suggested that the inquiry might be conducted through the agency of the Development Department, the State Director of Industries, the Director of Tribal Welfare, the Registrar of Cooperative Societies, and other organisations concerned with the promotion of household industry. A draft questionnaire containing 30 questions in three parts was recommended for canvassing. It was suggested that information on this questionnaire, village by village and area by area, might either be obtained through the regular departmental channels of the State Government, or through the newly set up Census organisation, or through the hierarchy of the newly-created Panchayats. Stress was laid on the need of photographic documentation and illustration of designs, shapes and forms not only by photographs but with the help of line drawings or sketches together with a full description of the materials used.

Almost the whole of 1960 and the first half of 1961 were spent in organising and taking the Census count, although several States even during this period had not allowed the grass to grow under their feet but made exploratory studies and decided in their minds how the inquiry should be organised. A series of regional conferences held in Trivandrum, Darjeeling and Srinagar in May and June 1961 revealed much enthusiasm among State Superintendents to proceed with the survey, but the need of separate staff and equipment was felt at the same time as the realization dawned that this was much too serious an inquiry to be treated casually and left to be achieved through the usual administrative channels and State Census Superintendents proceeded to augment their staff with qualified research and investigating officers, technical persons, photographers, artists, draughtsmen and other trained personnel.

This was followed by rapid progress in coordination between the Central and State Census offices in the matter of exchange and processing of information, documentation and investigation, of assisting each other with trained investigators and in editing and finalizing drafts, layouts, presentations.

Mention has been made of a questionnaire in three parts and thirty questions. The idea was to make a beginning with empirical, analytical studies based on a structured questionnaire which would replace general descriptive accounts that had obtained so far. The primary aim was to obtain a picture as much of the artisan himself as of his craft, to obtain a perspective of the artisan and his craft in his social and economic setting, the extent to which tradition bound him and the winds of change ruffled him, the extent of his mobility, and immobility, the conditions of market, credit, new contacts and design in which he operated, the fame of new as well as traditional producer-customer relationships in which he still worked, and how far he was ready to pierce his own caste-tribe socio-economic cocoon and make a break through to new opportunities promised by the Five Year Plans. The aim was to hold up the mirror to hereditary skills struggling with the dialectics of tradition and change.

Thus the first part of the questionnaire, purporting to be a village schedule, sought to take account of the size and population of the village, its remoteness from or proximity to centres of trade and commerce, in short, the degree of isolation in which the artisan worked, and the relative strengths of various communities in the village which would afford clues to social interdependence and the prevalence of the JAJMANI system. The second part was devoted to artisan communities in the village; the several castes of artisans, the number of families in each, the total number of workers, males and females, the extent of cooperative activity among them, the extent of dependence upon employers and of wage or contract labour. There were questions on the raw materials used, the means of their procurement, the possible extent of dependence on others for raw materials, the extent of the material that artisans can handle within the limits of their skill. There were other questions on the exchange and flow of designs, the use of colours, the ancientness of the craft and legends associated, the colonization of the craftsmen, on patrons and customers and on social and economic contact

with the world inside and outside the village. There were specific questions on the workshop itself and particularly the tools and the source of supply of these tools, because it was felt that tools decide everything and are the surest index of inertness or flexibility. Separate blocks of questions were designed to bring out the ramifications of artisans castes throughout the country and the ways they sustained themselves, the type of clientele they catered for, the exent to which they operated on money or barter or service, how specialised their craft was, how wide the market, how dependent they were on their socially preordained clientele and how restricted the latter was by the seemingly unalterable laws of social custom; the extent to which they could operate in the open market, the range of their wares and the sizes to which these were ordinarily restricted either by the limits of their own skill or the length of their customers' pursestrings. Inquiries were to be made about the operation of middlemen and of cooperative societies, the people who gave new designs and demanded new products. Finally tne several stages of production of the articles themselves were to be fully described including the final and finishing stage and a list of very skilled craftsmen of each community was to be furnished. The third part was devoted specially to tribal communities and designed to find out how self-sufficient or dependent they were on the production and supply of manufactured goods, the extent to which they produced themselves or depended on others, their contacts with other communities and the specific forms of production and commerce through which these contacts were maintained.

Particular emphasis was laid on the need of obtaining as full an account as possible of unique regional design differentiation as they reflect not only the very culture patterns of the country but the persistent inventive faculties of the craftsmen. The importance was emphasised of giving full attention to articles of domestic use as it is in their shape, designs and forms that the culture patterns and traditional skills persist most tenaciously.

Simultaneously with the investigation of specific crafts, State Superintendents proceeded to compile a comprehensive list of all types of handicrafts obtaining in their State. As for the specific Crafts to be investigated several tables were devised from the structured questionnaire in order to guide investigators toward pointed observation and analysis, to enable them to write, not just general descriptions, but with their eye on the object and on facts.

Investigations conducted between September 1961, and May 1962, including a study group of all States and the Social Studies Division in December 1961 at Delhi, stimulated many of the States into going in for a much enlarged schedule. The revised village schedule itself, the counterpart of the first part of the February 1960 schedule, contained 19 large sections containing elaborate and probing questions. The Family Schedule for practising artisan families similarly contained 19 main questions each subdivided into many questions. The Family Schedule for non-practising artisan families contained 21 questions. There were schedules for the study of cooperative societies, of production-cum-training centres, and of consumer's preference. This enlarged schedule of investigation, in the formulation of which the States themselves actively assisted, was greatly welcomed. The surveys that will appear in this series will therefore consist of two main types: (a) those based on the original short schedule and (b) those based on the much enlarged schedule. In some cases Census Superintendents felt enthused enough to scrap the work based on the original short schedule ant do it over again on the enlarged schedule. In the meantime much experience was gained on the analysis of facts and figures to cloth each observation with plenty of authentic information so that the reader could make his own judgement instead of being expected to see all the time through another pair of eyes.

This programme of survey of handicrafts and household industries has been fortified by several ancillary surveys, each one of which would deserve major attention. Along with the survey a compilation has been made of all handicraft centres in each State and an inventory

prepared of skilled craftsmen. Photographic and other documentation has been built up to constitute what may now be regarded as the most considerable repository in the country. Elaborate and accurate maps of craft centres in taluks, tehsils and districts are either ready or under preparation. A full census of all fairs and festivals, weekly hats and markets, throughout India, has been taken and is being published for the first time. Andhra Pradesh has embarked upon a project of chronicling the social and religious antiquity and uniqueness of every fair and festival. A separate volume will be devoted to each district which promises to be of the utmost value to sociologists and orientalists. A full and complete inventory, replete with sketches and measurements of every object has been prepared of exhibits in museums of tribal crafts in India. There has been a fairly satisfactory survey of houses and buildings, indigenous architectural designs and use of local building material of the whole country. All this has been entirely a labour of love, patienty organised and executed under great strain and in disregard of health and comfort, for which I take this opportunity of expressing my appreciation and grateful thanks to my colleagues.

New Delhi

July 30, 1964.

ASOK MITRA

Registrar General, India.

PREFACE

Sri A. Mitra, Registrar General India, has, in his foreword, indicated how a study on handicrafts was planned as part of the 1961 Census on an All India basis. Against this background, I will indicate briefly what has been done in Madras State.

In "Harijan" dated 10th November, 1946, Mahatma Gandhi wrote as follows:

"The villagers should develop such a degree of skill that articles prepared by them should command a ready market outside. When the villages are fully developed, there will be no dearth of men with a high degree of skill and artistic talent. There will be village posts, village artists, village architects, linguists and research workers. In short, there will be nothing in life worth having which we will not have in village."

It has been the pride of India that her arts and artisans have been well-known throughout the world. It has also been the endeavour of the Government of India to preserve our crafts and raise the economic standard of the artisans through various measures initiated during the First and Second Five Year Plans. In a mixed economy, it is necessary to maintain a balance between industrial development and the development of our village crafts and industries. This volume is an attempt to study the conditions of handicrafts including village industries and craftsmen of Madras State, on statistical basis. It will also be our endeavour to examine how far the village of Gandhiji's concept is being maintained in India and to what extent the crafts could be sustained on a competitive basis, which in the long run will add variety and artistic value to the various products which this State can produce.

This study was undertaken at the instance of Sri Asok Mitra, Registrar General, India. The relevant extracts of the letter written by him in 1960 are reproduced below:

"You will recall that we have introduced special questions on household industry in the household schedule and on establishment and workshops in the houselist in order to obtain a frame for all types of industries in the country. There was of course, a special request from the Ministry of Commerce and Industry in this regard, but from the census point of view, it is important to assess the magnitude of the household industries and small establishments, so that it can be related to livelihood of the population and enumeration of the total number of establishments and their industrial classification would be incomplete without a proper description of what they produce and how they produce. Census Organisation can well afford a comprehensive survey of a descriptive nature and I believe the Census really provides a unique opportunity for conducting such a survey."

This volume entitled 'Handicrafts and Artisans of Madras State' is the result of his letter. As the survey in this State was begun before the Social Studies Division was set up in New Delhi, it has not been possible for me to follow the questionnaire evolved on an All India basis. I have followed my own method of study. It was my intention to collect information on all the handicrafts practised in the State and build up tables for the State, district by district, and taluk by taluk. Some work was done in this direction. But the project had to be given up because of the difficulty involved in conveying a proper concept of handicrafts to different agencies filling in our schedules. So our attempt has been limited in preparing monographs on selected industries noted for their aristic appeal.

Detailed monographs on Silk-weaving of Kancheepuram, Palm-Leaf Products of Manapad and Nagore, Art-metal ware of Thanjavur, Fine Mats of Pattamadai, Icons in Stone and Metal, Woollen druggets of Wallajapet, and Wood Carving of Madurai and Virudhunagar have been published. The present one is on Glazed Pottery of Karigiri. A monograph on Bell-metal and Brass metal ware of Nachiarkoil will be brought out shortly.

I am grateful to Messrs Janatha Printing and Publishing Co., Private Ltd., for having printed this volume in record time. I do hope that this volume will be of interest to the general readers.

P. K. NAMBIAR

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10 FEB 1966
MADRAS

A superb workmanship of Magic Kooja with two lovely jugs. The excellent finish of the handles are well modelled and the colours well matched.

POTTERY IN MADRAS STATE

GENERAL PREFACE

Pottery, in its widest sense, includes all earthen—wares made of clay which has been hardened and cleaned by the action of heat in the potter's kiln. Therefore, it includes all kinds of artistic wares, jars, vases, bowls and jugs. Almost every household has earthen wares of one kind or the other. This may be black, brown or painted. The colour depends on the kind of clay used, the way in which it is fired and the colours used in it. Pottery is used for all sorts of purposes—for storing food materials, cooking and for observance of rituals etc. In Madras State, every district has its quota of potters and there are a number of Co-operative Societies started at various headquarters in the State. "The master potters of the world are the Indians who have worked in clay to produce a remarkably beautiful style of pottery".*

"Truest to nature in the directness and simplicity of its forms and their adaptation to use, the purest in art of all its homely and sumptuary handicrafts is the pottery of India. It is also of the highest antiquity, since perhaps no feature of Indian art has such a long tradition of artistic achievement as Indian pottery. Way back to the Indus Valley Civilisation, glazed pottery of pleasing and varied shapes with rich, decorative designs in black or red, filled, enriched and illuminated our domestic life, although a higher development of the art of pottery has been confined mainly to the making of jars, flower vases, bowls and similar other objects on account of orthodox Hindu prejudices that pottery is easily defiled and must be destroyed when once used. A very high degree of exquisite craftsmanship can be discovered in other works as well of the artist potters. Today in every village the hereditary potter may be seen sitting by his wheel moulding the swift revolving clay by the natural curves of his hands turning out products in the same antique forms as represented in the paintings of Ajanta. In Madras, Vellore in North Arcot, Sankarankoil and Karukurichi in Tirunelveli district are famous places for both glazed black and red pottery. Black pottery painted with the special preparation of yellow earth mixed with other substances is also being made in Madurai for ages past. In all these modes of pottery, the Indian potter invariably maintains inviolate the beauty of form, harmony and colouring of surface decoration together with perfect unity of purpose with a seeming premeditation as if the work were the creation of nature rather than of art." *

Among the famous centres of glazed pottery like Usilampatti in Madurai district, Panruti in South Arcot and Karigiri in North Arcot, the glazed pottery of Karigiri is most famous. This has been taken up for special study. In the case of red, lacquer and black pottery, Tirunelveli is very famous, producing articles richly varied in design. The Co-operative Society of Potters at Karukurichi is very important and, therefore, has been ta en up for study.

* Shanti Swarup: Arts and Crafts of India and Pakistan.

* George Birdwood; Industrial Arts of India

GLAZED POTTERY OF KARIGIRI

CHAPTER I

Introduction

In the heart of North Arcot District, seven miles from Vellore, the district headquarters, lies the little village of Karigiri. The visitor after negotiating the unmanned level crossing on the outskirts, enters this village to find it in a state of perpetual siesta and is not confronted by the bustle and noise, common features of most villages in India. At first sight, there is nothing in this village to strike the eye of the beholder; it is only when he enters a neat little house on the main street that his eye meets the spinning of the potter's wheel and the deft hands of the potter fashioning various beautiful articles, vases, jugs and water pitchers which for grace of form, symmetry of line and brilliance of colour holds its own with any pottery produced anywhere in the country, for Karigiri is the home of the famed glazed pottery which bears its name.

A visitor desirous of reaching this village has no easy task before him. If he prefers the Railway as a means of locomotion, he has to reach the nearest Railway Station, Katpadi, then take a bus, get down two miles away on the main Chittoor trunk road and hire a bullock cart to reach the village. The more intrepid traveller prefers to hire a cycle or a bullock cart at Katpadi to reach Karigiri, as it is not connected by any pucca road.

Two miles from this village there is a hill named locally as Asura Malai. Hills have the peculiarity of physically resembling animals petrified. When observed at certain angles, this hill resembles a giant elephant in an attitude of repose. For this very reason, the village nestling under the shadow of the hill came to be known as Karigiri—Kari meaning elephant and giri meaning hill in the local patois.

Generally, the climate of this place is very hot, rainfall being scarce. The village covers an area of 2,000 acres and has a population of 2,576 made up of 490 families. Of these, only 6 families belonging to Kumbhar subsect of Hindu Udayar caste consisting of 16 souls—14 males and two females—are engaged in the manufacture of glazed pottery. These two women workers assist their husbands in bringing the clay, gathering cowdung, preparing cow-dung cakes, setting fire to the kiln and drying the baked and unbaked vessels.

The potters of Karigiri belong to the Kumbhar community. They claim to have descended from a Brahmin father and Sudra mother. Some of the potters of Karigiri still wear the sacred thread like the Brahmins. All the six families living in this village belong to the Saivite sect. They observe the usual Hindu festivals and prohibit widow remarriage. Except for two persons who have studied upto SSLC, the rest are illiterate. None of them owns any land and have no other avocation except making of pottery-ware.

The history and origin of the craft at Karigiri dates back to 400 years. Enquiries regarding the origin of this craft and legend connected with the inception of the craft elicited the following information. The original inhabitants of Karigiri were mainly agriculturists, depending on land. Rainfall then, as is now, was scarce and the people at that time were confronted with terrible drought conditions and a large number of men and women perished due to hunger. At that time, it is stated, a man came to the village from Shencottah. His parents, as well as his community had asked him to marry a girl aged 7 years and as he was opposed to child marriage and could not find any means to avoid the union, fled from his village with the intention of taking refuge somewhere. In the course of his wanderings, he came to Karigiri. How he managed to choose Karigiri as a haven of refuge, no one was able to tell us. The villagers, faced with the problem of feeding themselves, did not welcome a guest at the outset. Luckily for him, he was a master in the art of pottery, as he belonged to a family of "Kumbhars" or Potters. The dangerous phase of famine was tided over and this migrant from Shencottah eked out his livelihood by fashioning wonderful pots, vases and jugs. With the passage of time, he became a respected man in the community and impressed the natives of Karigiri with his technique and art. He settled down in the village and the chief of the village offered him the hand of his daughter. He was provided with all amenities and comforts and practised this art with all the skill at his command. He handed down the techniques of his art to the members of his family and his friends, who in turn, passed on the knowledge from father to son.

With the decline of handicrafts all over India during the early days of the British rule, this craft might

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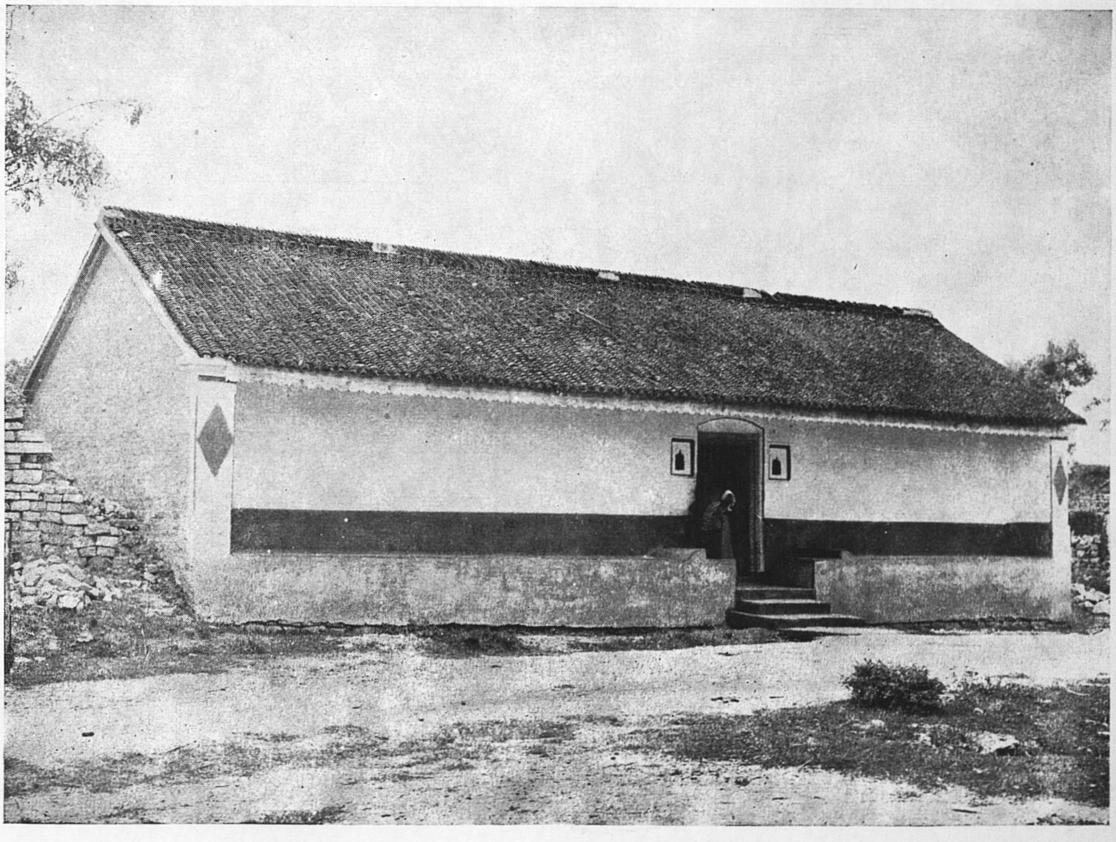
Main street of Karigiri, without any bustle and noise, most common feature of many Indian villages.



A neat little tiled house of a potter on the main street.

A thatched house of a potter on the main street.

Some of the leading artisans of six families engaged in the manufacture of Glazed Pottery.

have died a natural death in Karigiri also, but for the zealous preservation of this art as a hereditary occupation by one or two families and the royal patronage extended by the Nawabs of Arcot which came at the most opportune time. Lack of financial resources was one of the main reasons for the gradual decline of this art and the Nawabs stepped in to provide not only the necessary patronage but also the immense backing of their wealth, which alone could have saved this craft. The Nawabs took under their protective wing one of the craftsmen, a Hindu named Sanyasi Udayar and the six families existing at present are said to be his descendants. It was at that time the potters started producing beautiful, glazed, pottery of traditional Persian design and motif, as desired by their royal patrons and even now this traditional design is being adopted by the present craftsmen.

Our enquiries revealed that after the downfall of the Arcot Nawabs, the family of Karigiri potters became scattered all over the South, as they could not flourish in the village. Due to lack of royal patronage, some of the descendants of the original potters are now said to be living in parts of North Arcot district and in Tirunelveli district. Those who left Karigiri did not stick to the production of glazed pottery but took up red pottery which, though not as artistic, had a steadier demand because it was used largely for making culinary utensils and was easier to produce. Some of them have also taken to cultivation in and around the district of North Arcot. It was only faith in their artistic ability, their zealous adherence to a hereditary occupation and the patronage extended by Christian Missionaries which preserved this craft during those difficult days.

Part played by Christian Missionaries

The Christian Missionaries have played a significant role in encouraging the growth of eductional institutions and hospitals in the State. In North Arcot especially, at Vellore the Christian Missionary Hospital has carved a niche in the field of medicine. It was in 1950's that a branch of the Christian Missionary Hospital of Vellore, a leprosy clinic, was opened at Karigiri. Karigiri pottery had only limited market and it was difficult for them to live with any degree of comfort. Immediately after the war, the craft entered its darkest phase. At the very nadir of its fortunes, the Christian Missionaries who were living round about Karigiri and Vellore, running the hospital and the clinic and had always been the regular customers of glazed pottery heard of the financial distress of the potters and came to their help not only by extending monetary assistance, but also by encouraging others in foreign countries to buy the articles and thus kept alive what has been our cultural and artistic heritage. It was to the Christian Missionaries that the credit goes for introducing Karigiri pottery to the Victoria Technical Institute located in Mount Road, Madras. Fortunately they did not encourage the potters to migrate to that place for practising this craft. Once glazed pottery found its way into this institute, which is normally thronged by visitors both within India and from abroad, the fortunes of Karigiri pottery took a slight turn for the better.

The Government of Madras have now stepped into the void left by the Arcot Nawabs to provide the technical and financial assistance so urgently needed and so richly deserved by the surviving craftsmen.

TECHNIQUES OF PRODUCTION

CHAPTER II

Clay

Clay is the most essential material in the making of any kind of pottery. Its peculiar characteristics are its porosity, its pliability and its plasticity. When wetted with the right amount of water, it is plastic by nature and can easily be shaped into any form. Its porosity allows it to shrink when dried and shrink further when fired. It is here that the potter has to use his judgement in applying the right amount of heat, as excess heat may mar the shape and weaken its strength. The potter, before making any type of article, should take into account the plasticity of the clay and its reaction during firing and drying. He must, therefore, know among other things why clay shrinks, why a particular type of clay shrinks more than others, why vessels sometimes crack during cooling of the kiln and how to bend and fire his materials.

Till the fifties of this century, the potters of Karigiri were using a particular type of clay known as 'Cheyyar Clay' which cost Rs. 50/- per ton. This clay had to be transported by lorry from Cheyyar in North Arcot district and was found suitable for low temperature firing in the making of glazed pottery. Recently, the potters have switched over to clay available at very cheap rates in the nearby quarries which is pre-eminently suited for low temperature firing and for making the famed glazed pottery. This is known as 'Kaniyan Tangal' clay bearing the name of a small village in Chingleput district, the outskirts of which have abundant deposits of this peculiar variety of clay. When the potters were working in the Government workshop set up by the Government of Madras which had an electric kiln where high temperature firing was in vogue, they were supplied with the clay brought from Bhimadole in Andhra State. This clay was noted for its high degree of plasticity and for the whiteness of its colour. The cost of it excluding transport charges was Rs. 50/- per ton. Further, as this clay was fit only for high temperature firing and the articles could only be fired in the big electric kiln, the villagers who are not using this kiln could not afford to purchase this costly clay as it required large quantities of fuel to attain higher temperature.

Red lead

Red lead is the next important raw material used in preparing the glazed materials. This is mixed in suitable proportions with other glazing materials such as Felspar, China Clay, Tin Oxide, Quartz, Copper Oxide, cobalt Oxide and Aluminium. The chemicals required for preparing the glazed mixture are normally purchased in the open market of Vellore town in bulk. When the Government workshop was functioning, the Government used to supply the chemicals to the potters at relatively cheap cost.

The other raw materials, Thornwood, Plaster of Paris, broken bits of red pottery, dry grass mixed with cowdung and straw are purchased locally from the village itself.

Thornwood

The other raw material is thorn-wood. Different types of dry thornwood are collected round about Karigiri and spread over the kiln to create sufficient fire and smoke to raise the temperature. It is purchased locally at 37 nP. per bundle.

Plaster of Paris

It is used to make various moulds. It is made out of Gypsum which is calcined, powdered and sieved. This powder of Plaster of Paris is purchased from Vriddachalam at a cost of Rs. 5/- per 100 lbs. Designs are prepared by mixing the powder of plaster of paris with little amount of water and the ball is immediately stuffed in the mould and pressed to get the exact design and shape.

Firewood

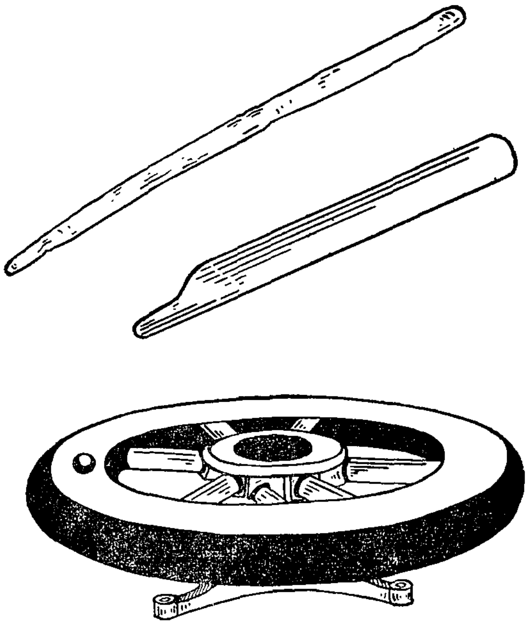
The next raw material is firewood. It is utilised to fire the kiln. It is purchased locally at Rs. 1.25 paise per bundle of 56 lbs.

Straw

After harvest, the grass is separated by beating it on the ground from the paddy crop and is allowed to dry. It is bundled up by twisting it and is purchased for Rs. 6 to Rs. 8/- per cartload.

Tools and Equipments

The following tools and equipments are essential before the potter can undertake the manufacture of his potteryware.



1. *Flying Stick.* 2. *Finishing Blade.*
3. *Improved pottery wheel with ball bearings.*

Potters' Wheel

The potter's wheel is composed of several thin pliable pieces of wood or bamboo, bent and tied together in the form of a wheel about 3½′ in diameter. This is covered over with a coating of clay mixed with goat's hair or any other fibrous substance. The four spokes and the centre on which the clay is placed are made of wood. The pivot is constructed of hard wood fixed on the ground. The support for the wheel consists of a rounded mass of clay and goat's hair in which is imbedded a piece of hard wood or stone with a depression for the axis or pivot to move in.

Bucket

It is made of corrugated iron sheets, used at different stages of work. Usually water or soft filtered clay is stored in a bucket for three or four days. It is also used to fill it with full of glaze and dip the vessel in it. It is purchased from Vellore at a cost of Rs. 12/-.

Shaping Wood

It is a small piece of flat soft wood 9 inches in length. At the finishing stage, this is used to attend a smoother finish and to give a more accurate shape.

The Aroblade

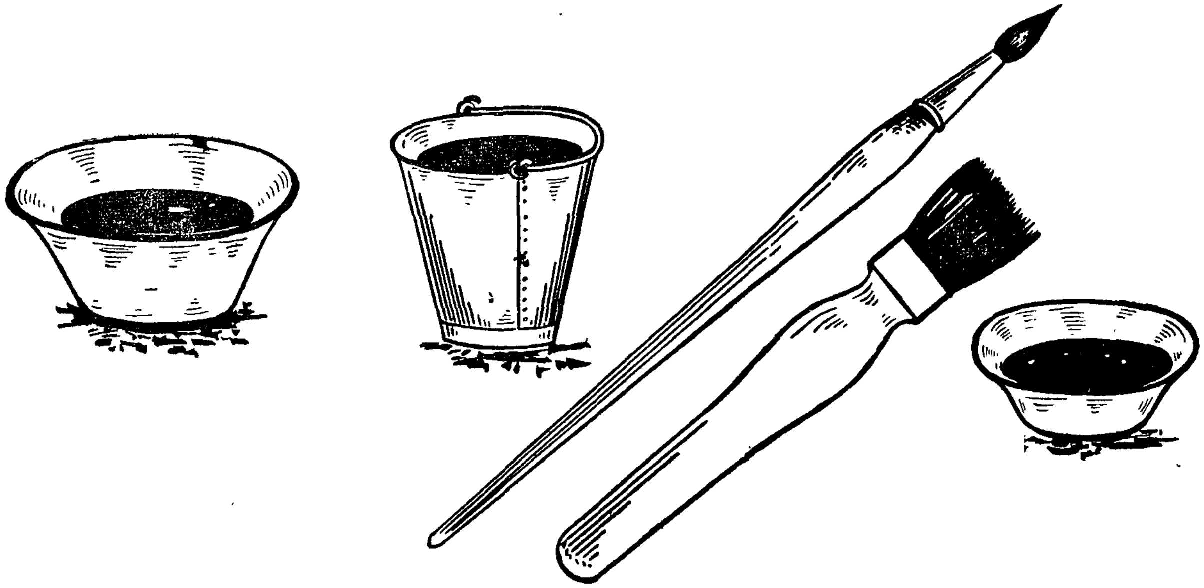
This is a thin sharp blade made of 2′ in length. When the vessel is completed on the wheel, the potter cuts off the vessel from the wheel by means of this thin blade. It is available locally at a cost of about 37 np.

Flying Stick

This is an ordinary bamboo stick of 3′ in length which fits into a slight depression in the wheel. The wheel is spun rapidly by the aid of this flying stick. It is made locally by the potters.

Basin

Glazing materials are mixed in suitable proportions in the porcelain basin. It is purchased from Vellore at a cost of Rs. 7/-.



1. *Basin* 2. *Bucket* 3. *Brushes* 4. *Basin.*

Piece of Wire

A piece of copper wire 3 to 4 ft. in length is used to cut the completed vessels from the wheel. It costs 20 np.

Kiln

After the glazing process is over, the articles are baked in a high temperature cylindrical kiln about 5′ to 6′ in height made of hardened bricks built 2′ thick and divided into two stages by a pierced flooring of clay. The top of the cylinder is domed over and certain outlets are provided for the smoke to escape, with a couple of spyholes so that the temperature can be judged to a nicety. It is manufactured by the masons locally at a cost of Rs. 1,200/-.

Brush

After removing the vessel from the oven, it is carefully examined whether it requires any finish or decoration or to remove over-glaze. Any roughness on the vessel may be removed by polishing over it by a soft brush made out of synthetic fibre with a wooden base. It is purchased from Vellore at a cost of 0.75 np. per brush.

Manufacturing Process

Like any other manufactured article, the lump of clay which looks so uninteresting to the uninitiated undergoes several stages of transformation before it emerges as the glazed pottery of Karigiri.

STAGE I

Preparation of Clay

The Kaniyan Thangal Clay transported to the village in bulk by lorries is broken up and dried in the sun for a couple of days. It is then moistened with water, allowed to remain for a night and kneaded thoroughly by the potter. The clay so treated is sieved to remove its impurities in the shape of dirt and small stones. The clay is made into a soft paste by the addition of water, the potter mixing it by hand or with a piece of stick and the moistened clay is passed through a thin piece of cloth which retains the gravel and stones. This soft and filtered clay is kept under shade in a bucket or a big pot for 3 or 4 days to drive out its moisture and to make it smooth, soft and plastic-like. Afterwards, the clay is taken by the potter and placed on the hub of the potter's wheel preparatory to fashioning the article which the potter wishes to produce.

STAGE II

Throwing

The operation of fashioning a vessel out of the prepared mud is known as "throwing". The potter squatting to one side of the potter's wheel and taking up the lump of the prepared and moistened clay places it on the centre of the wheel. The wheel will be spun rapidly with the aid of a long piece of bamboo stick, 3′ in length, one end of which fits smugly into the slight depression in the wheel. Holding the upper end of the stick with his right hand and the lower with his left hand the potter now gives the wheel a few vigorous turns which sets the latter spinning evenly and steadily in clock-wise direction like a top without coming to a stop for 4 to 5 minutes. The potter now throws aside the stick and squeezes swiftly the lump of clay placed on the centre with both hands, throwing violently on the centre of the disc or wheel so as to make the clay adhere to the latter while the wheel is revolving. According to the pattern he had in mind, now, alternatively pressing or smoothening, the potter fashions the raw material into any desired shape. If a vase is required or any other hollow vessel, he presses one or both his thumbs hard down on to the centre of the pot so that a cone is created and then proceeds to fashion the vessel to the desired shape. During the final stage he may use his fingers, but the potter prefers a small flat piece of wood to attain a smoother finish and a more accurate shape. The speed at which the wheel revolved must be adjusted to suit the shape and size of the article to be made. When the article is completed, it may be cut with a thin wire or a tightly stretched strong string either by keeping the wheel in motion or by keeping it still; usually it is done while in motion and removed immediately.

STAGE III

Drying

Once the vessel is shaped and cut out, it is placed in the open sun for drying. This drying in the open sun is for a duration of 10 to 15 minutes and afterwards it is replaced on the wheel to apply finishing touches or for cutting out extra designs, if required.

STAGE IV

Designs

The Karigiri potters from time immemorial persist in adopting the traditional designs and motif for their

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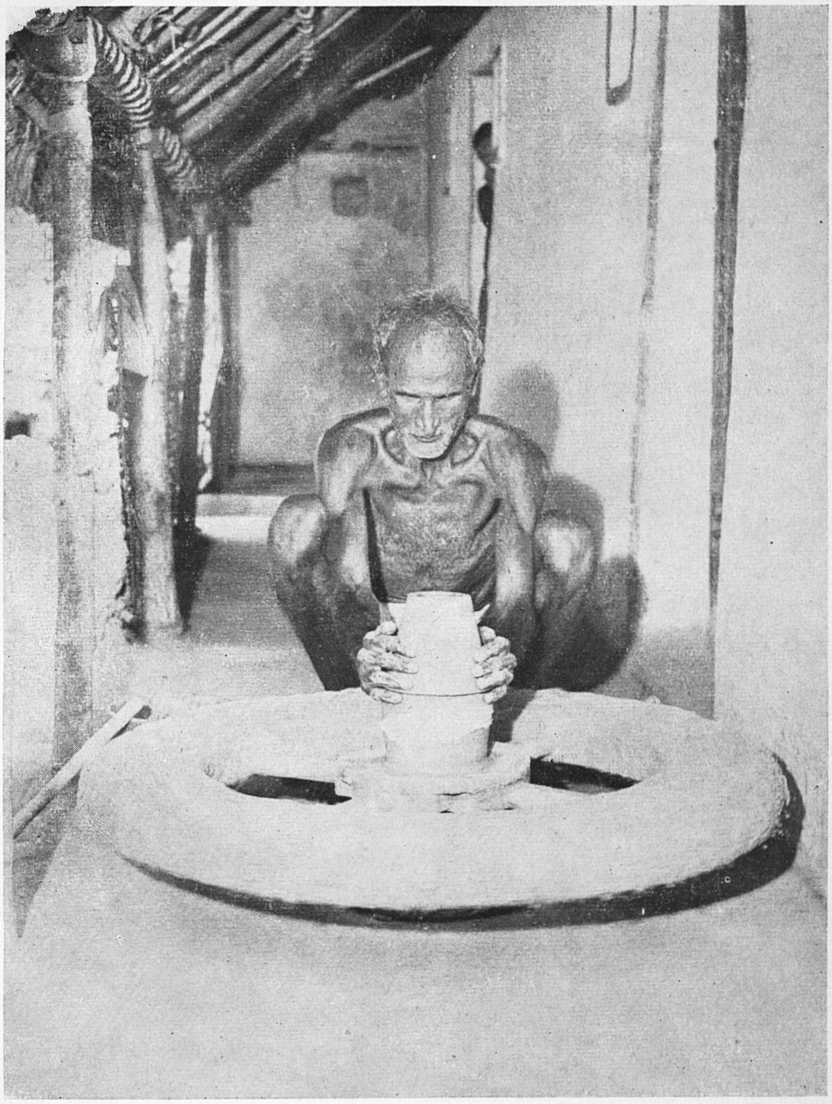
Potter kneading the clay with his feet after moistening with water.

After squatting on one end of the wheel the potter spins the wheel with the aid of bamboo.



The potter squeezes swiftly in the middle of his operation with both hands and thumbs to fashion a flower pot.

At the final stage the potter uses his fingers to attain a smoother and finer finish to the flower vase.

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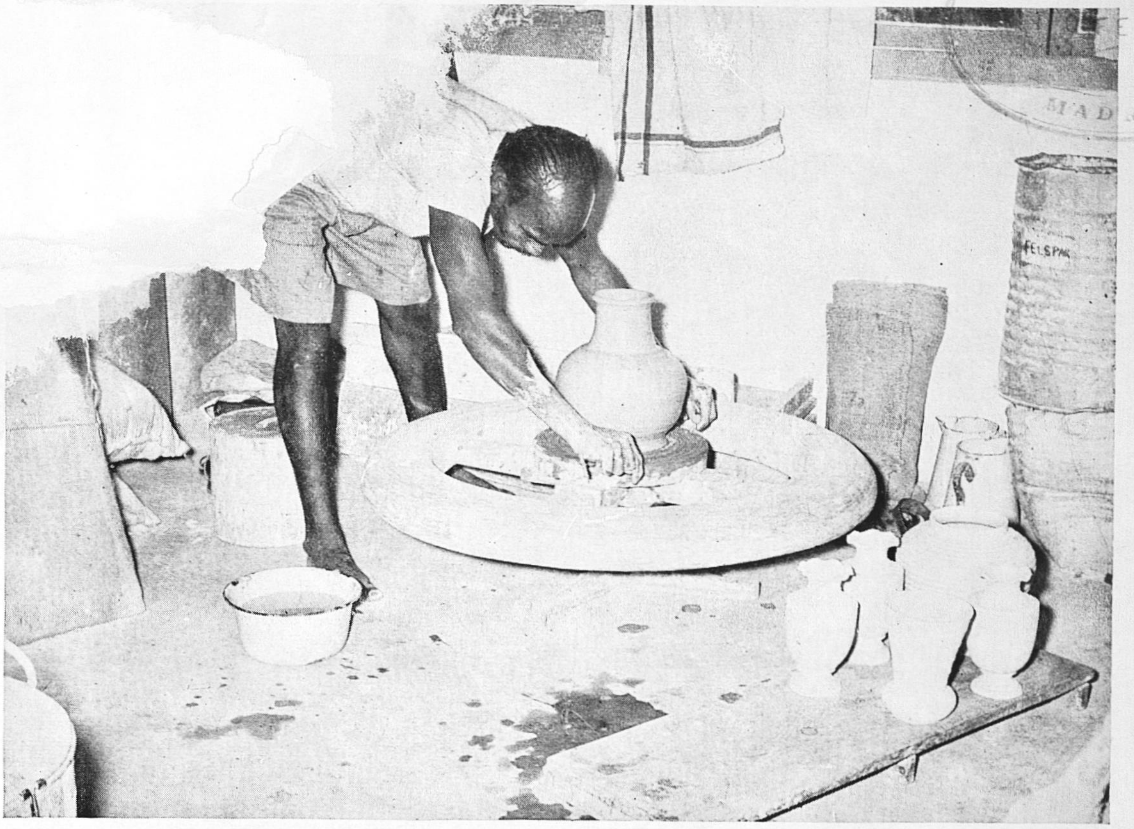
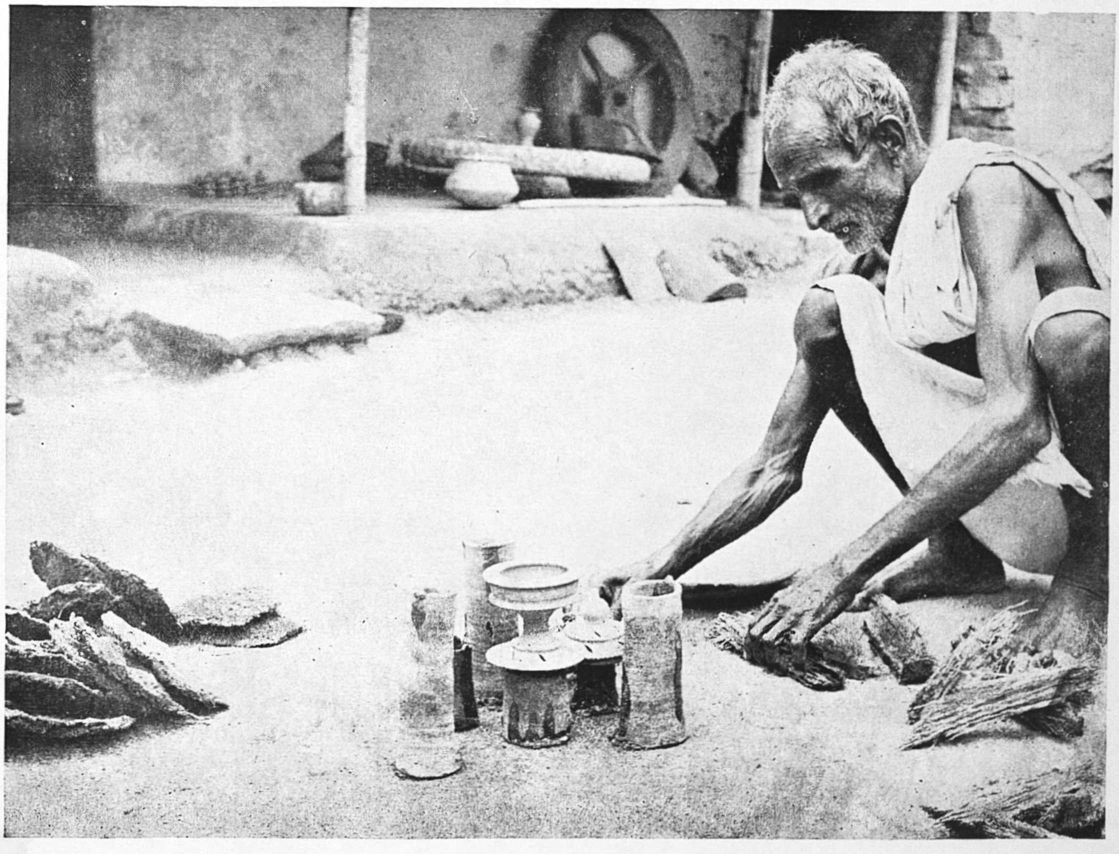


The potter cuts out the article by means of a tightly stretched copper wire.



Preliminary arrangements are being made by the potter to fire the articles. Over some broken pots, finished products are kept and on either side of the picture some cow dung cakes and dry straw are lying to be placed on all sides of the articles.

Over the prepared heap of articles cow-dung cakes and dry grass are spread uniformly and the four potters are adding fuel to bake the vessels.

Various articles kept in open space for drying before glazing.

magic koojas, chillums, fancy flower vases and other types of water pots. The Nawabs were fond of green colour and, therefore, the workers imparted a dark green glaze to the vessels to please their Royal Patrons. Even to this day, the majority of the vessels of the traditional designs are produced in the Government workshop and by the individual potters. In the museum attached to the worhshop, can be seen in a show-case an old Kooja produced in 1803, of the traditional design and colour, said to have been made by one Sanyasi Udayar who was the chief potter in the Nawab's household. Though 158 year old, it has still preserved its colour. While comparing the design with a number of articles of the same type produced by the potters nowadays, the design has not changed appreciably.

After the intervention of the Government to ameliorate the conditions of the Karigiri potters, training has been imparted to many of them in the School of Arts and Crafts at Madras and the Government Workshop set up at Karigiri. Keeping track of changes in consumer preference and to cater to foreign tourists, new colours and also new designs have been introduced and some of the articles now being produced are toys like frog, China fish, artistic wall brackets and floral ash trays and sparrow seated on the ink pot stand etc. These articles are also produced in the School of Arts and Crafts, Madras. Some of the traditional and modern designs are mould-made, appliqued, incised and stamped to give the article a relief effect.

The statement given below will indicate the articles produced by the potter, the size of each object and the time it takes him to fashion the articles out of clay.

Object	Traditional/ Modern	Size o articles	Time taken (from wheel work to glazing stage.)
Artistic Magic kooja	Traditional	14″	1½ hours
Chillums	,,	6″	30 mts.
Fancy flower vases	,,	9″	45 ,,
Toys	Modern	4″ to 6″	30 ,,
Wall-brackets	,,	9″	40 ,,
Ash Trays	,,	2½″	30 ,,
Japan fish	,,	7″	30 ,,
Tea-set	,,	4″	60 ,,

Modern designs have crept in the ceramic world but Karigiri potters have not caught up. The main cause for this state of affairs is that they have bluntly forgotten to take up any scientific analysis of the marketing trend for their goods. They are ignorant of the design and colour which will really have a good market. Even though there is a paid technical supervisor his services are not properly utilised. The government should aid them in this respect by instituting good marketing agencies and advising them on the designs and types which they have to produce in large numbers. This design will help them to produce good vessels with pleasant designs by which they can expect good demand.

A glance at the sketches and photographs will indicate that even though modern ideas and new designs have permeated among the potters to-day, the traditional designs are still the best, pleasing to the eye with its symmetry of form and richness of colour.

The following is the brief description of a few traditional and modern designs :

Magic Kooja

It is a jug of olive green and limped blue colour. The peculiar thing about it is, instead of filling water from the top, it is turned upside down and filled from the bottom. The beauty is that water remains in the magic kooja even when it is put back in proper way. It is manufactured by all and sold at Rs. 3.75/- per article.

Artistic Chillums

Chillums are produced all over India, but it has been brought to distinction in a few places like that of Karigiri. Enamelled chillums for smoking tobacco is the other specimen of purely native origin. There is not much demand for this piece as it was in the days of the families of Nawabs. This is also glazed with dark deep-green and dark-blue colour.

Fancy Flower Vases

The basic shape is made by hand on the wheel and then the wheel is stopped, and the clay is incised with a bamboo blade to give a decorative and artistic touch.

Bathing Lady on Ash Tray

If an ash tray with a bathing lady is required, the potter slowly presses his hands on the lump of clay to make it into an angular shape and then proceeds with slight depressions at the sides to place few cigarettes. The potter may finish it with his fingers but he usually prefers a small piece of flat wood to attain a smoother finish and an accurate shape.

Next the design of a mould depicting a bathing woman is taken and attached to the top corner of the

ash tray and the potter uses his workmanship to give a decorative effect.

China Fish

This lovely decorative modern piece reflects the workmanship of the present day potters of Karigiri. Being cheap there is great demand for it.

Himalayan Ash Tray with floral paintings

This is one of the good modern designs to suit the changing taste and fashions of modern era. It is either of fine transparent emerald or deep dark brown with fine finish. It holds a good market and is available in various emporia.

STAGE V

Low Temperature Baking

The designed vessels will be taken off the wheel for a second time and placed in the shade for final drying for a duration of four days. On the fifth day, it is removed from the shade and exposed to sunlight for a few hours. Side by side, the potter makes the necessary arrangements to fire the articles. If warping, cracking or deformation is to be avoided, objects made of plastic clay must be dried more rapidly than others with less plasticity. Unequal shrinkage between two portions may also cause warping or cracking and many changes may occur during firing. The vessels are now ready for baking or firing. The usual method adopted by the Karigiri potters for baking vessels is as follows :-

A circular space, 10′ in diameter, is marked out on the ground in any available and convenient open space. Broken bits of red pottery are then placed on the ground to act as a sort of stand for placing the dried and fashioned clay articles, as it is imperative that these articles do not come into contact with the ground. The dried articles are then brought and placed upon these broken bits of red pottery and covered by further pieces of the same variety. Over this composite construction dry grass mixed with cowdung is spread uniformly. This acts as a blanket to control the fire spreading on all sides. At the bottom some holes will be left here and there to allow the smoke to escape. The entire kiln will then be smeared with clay. These arrangements being completed, fuel made of chopped wood and cowdung cakes is placed at the bottom of this hand made kiln and fired, the fire being maintained continuously for six hours. This process is known as " Biscuit Firing " or " Low Temperature Firing ". The heat required will be in the range of 600°C to 850°C. The time taken for th s firing depends on the size of the kiln and the type of clay used. With the kiln used at Karigiri between 6 to 8 hours are sufficient for the vessels to become hard dry and ready for glazing.

STAGE VI

Glazing

After the low temperature baking is concluded, the vessels which become dry and hard will be kept in the open for some days before glazing is done. Glazing is effected either by dipping or by brushing the article in a slip composed of some or all of the following materials mixed in suitable proportions with water. Felspar, China Clay, Tin Oxide, Quartz, Copper Oxide, Cobalt Oxide and Red lead. Glaze has to be quite stiff or thick when melted so that it will spread evenly on the surface of the article and not run off during baking. This stiffness in glazing pottery is improved by the addition of a small quantity of aluminium to the glazed mixture.

The glaze that is being used by them is a frit (lead silicate) which they get by fritting (or melting at a temperature of 800°C) read lead (p. 60) and silica (S. 102) in the proportion of 80 : 20. This melted glaze is grounded to a fine powder which will pass through 200 mesh or else the resulting glaze will not fuse properly and will appear as irregular smudger on the surface of the article. This is one of the most important processes to which the potter devotes considerable time and attention and unless the work is done carefully and expertly, it would lead to endless trouble and would mean wastage of precious raw material, time and labour. The colours produced vary considerably according to the kind of glaze used, the heat of the kiln, the condition of firing and the strength and purity of the pigments which effect not only the tone, but also the tint obtained. The following materials used by the potter give the different colours he desires.

1. *Iron Oxide* is the lead glaze which gives a colour ranging from amber to dark warm brown or brick red.

2. *Copper Oxide* gives green tints in lead and a lovely turquoise blue in alkaline glaze.

3. *Manganese Oxide* gives brown tints and a very pleasant plum colour in alkaline glaze. Along with iron, it gives black and a dark brown colour.

4. *Cobalt Oxide* is the one pigment from which all true pottery blue is derived.

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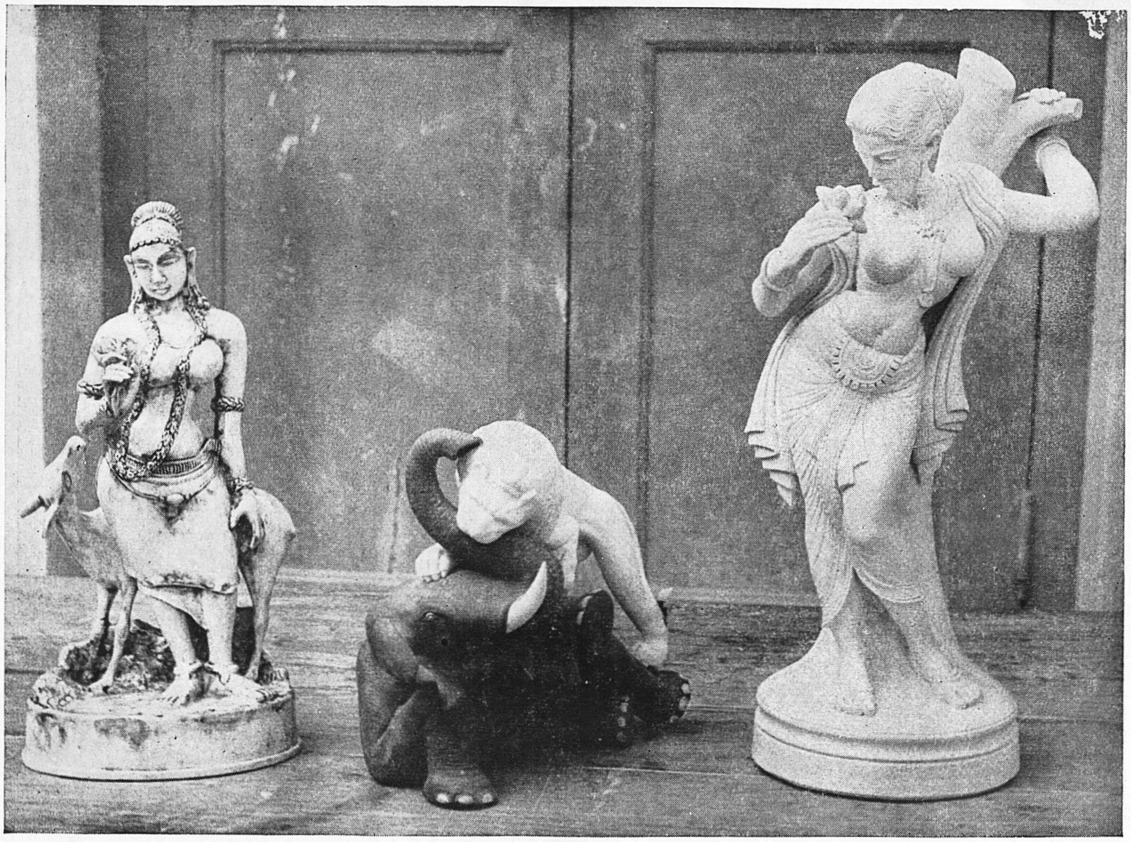
Varied designs of Ash trays and Flower vases devised on the modern trend of art.
(From top to bottom)

TOP I, 3, 4 and 5 Ash Trays
2 and 7 Flower vases
6 Abstract model of a woman in kneeling posture.

BOTTOM I, 3 and 4 Flower vases
2 Ash tray with a model of a woman in lying posture.



Some of the superb artistic, imaginative and modernistic examples of glazed pottery: Left to Right are—

1. Sakuntala with her pet deer.
2. A fierce fight ranging between the King of the Jungle and an Elephant.
3. An unsurpassed example of a beautiful woman with a rose in her right hand. The work is enhanced by its simple but bold touch.

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Some of the fine examples of the traditional glazed pottery. Left to Right— 1. Lord Krishna flower vase. 2. Surahi (water jug) 3. Dish 4. Magic Kooja and 5. Bathi stand.

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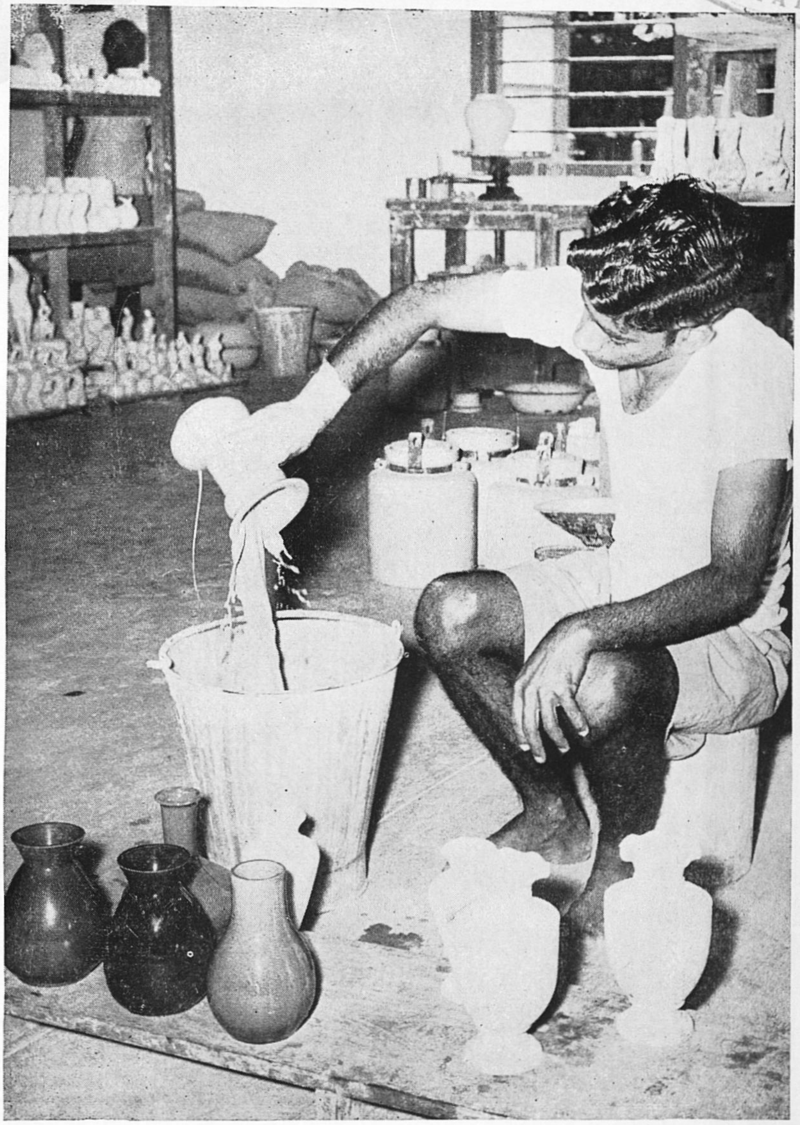
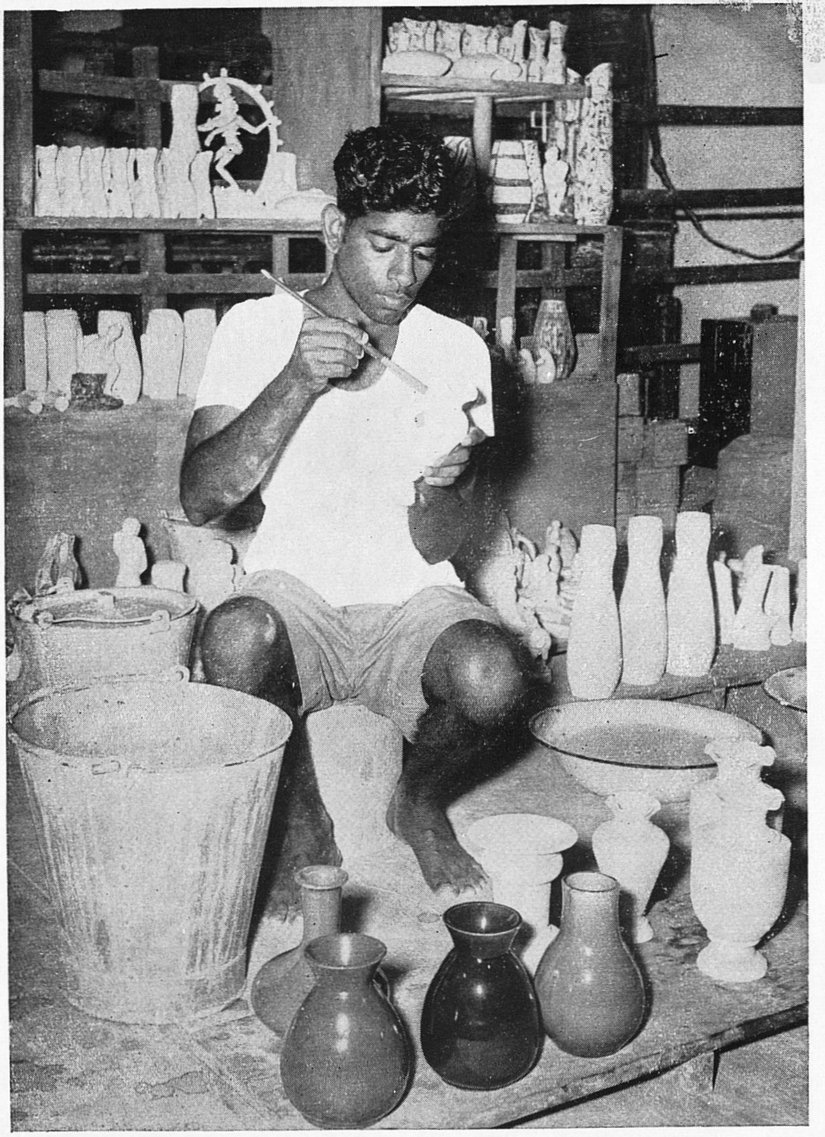


A potter is seen applying glaze by dipping the article in the bucket full of glaze and then turning it upside so that the excess may run out. Note the difference of colour of the articles kept by the side of the bucket. The dipped articles are milky white, while the undipped are black and brown in colour.



Any uncovered part or where a little slip of glaze is found it is immediately rectified by a brush so as to ensure a uniform coating of the glaze on all sides.

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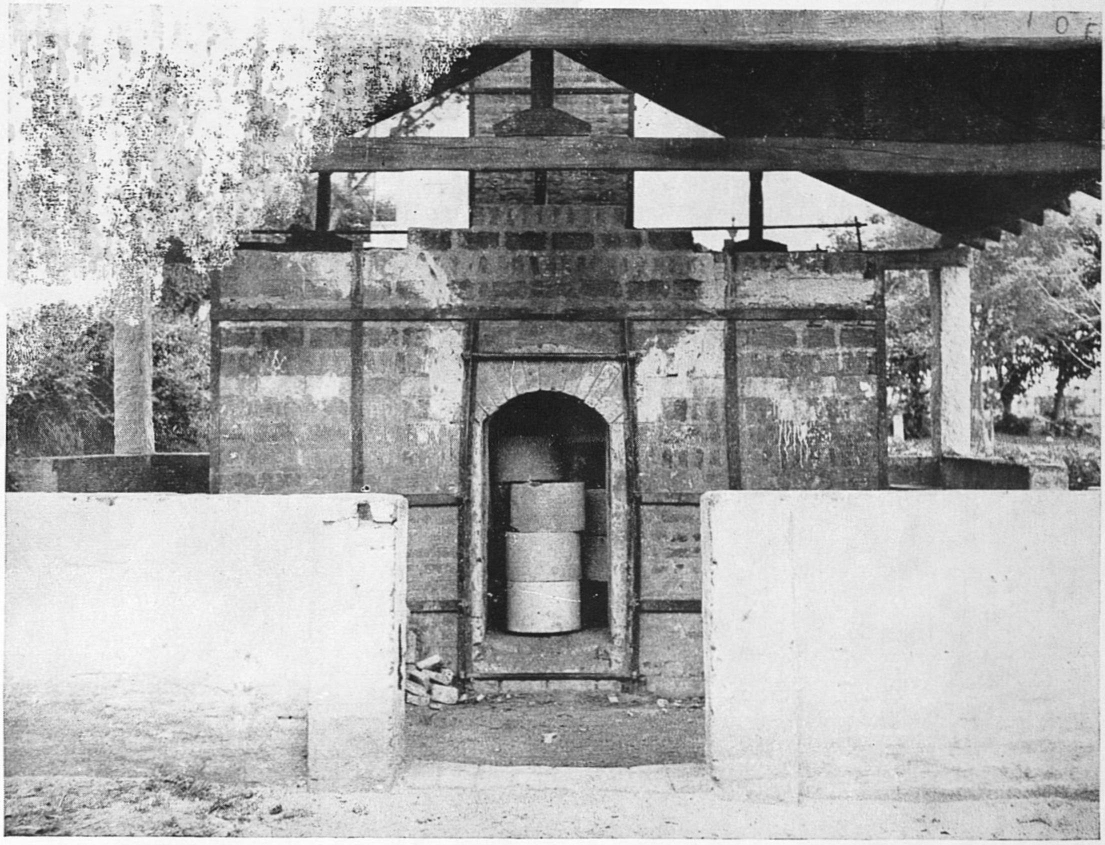

The high temperature cylindrical Kiln of 6 feet in height was built by the Government in order to help the potters to produce beautiful and durable glazed pottery. At present this Kiln is lying idle due to its high cost of operation.

The premises of Karigiri Cooperative Society and the two huge un-utilised Kilns built by government assistance which demands high cost of operation to handle it.

Some of the finished glazed articles such as the traditional chillums in the front of the picture and the flower vases of various shapes in the back stored in the store room of the Cooperative Society for onward transmission to various Handicrafts Sales Emporiums.

5. *Antimony Oxide* in combination with lead furnishes yellow tints or orange with the addition of iron.
6. *Oxide of Tin* is used for making milky white objects.
7. *Chromium Oxide* is now being used to give a strong opaque green.
8. *Gold and Silver Salts* furnish pink and yellow tints.

In Karigiri, since the traditional Persian motif is green and the Nawabs of Arcot preferred green colour, most of the objects produced in olden days and also being currently produced in large quantities are green. So Copper Oxide is the salt more commonly used which the native potter calls 'Zangalapachi'. It was extremely difficult to observe the mixing of the glaze or to get from the potters the secret behind the preparation of the glaze, as it was considered by all the potters as a trade secret to be zealously guarded from the buyers' eyes or ears. It took us a considerable amount of time and lot of patience and tact before we could get them to show us their secret in mixing the glaze. The mixture is made as follows: 75% of red lead and 25% of quartz is mixed to get the glaze. To obtain the colour, if it is green, 5% of copper oxide or if it is blue the same quantity of cobalt oxide or if it is brown, iron oxide is added to this mixture. A vessel, glazed with this mixture, holds the colour for a number of years, without fading. The following statement indicates the comparative amounts of glaze required, the cost of the glaze and the number of vessels in various kinds for which this could be utilised.

No. of lbs.	Cost of articles Rs. nP	No. of vessels
1	1.50	6 cups and 6 saucers
1/3	0.50	1 magic kooja
1	1.50	1 dozen ash trays
1	1.50	6 flower vases

The glaze is usually applied to the vessels by dipping the latter into the slip, the ware being held in such a manner that all parts to be glazed are covered completely by the slip. The density of the slip and the porosity of the ware will largely determine the thickness of the coating which must be regulated to suit the nature of the vessel. Any uncovered parts may be covered with a little slip applied by the fingers or by a brush, but such patch work is avoided as far as possible. This is a highly technical process and the Karigiri potter is an expert in dipping the ware, so that a uniform coating is obtained and excess of glaze on any part of the vessel is scrupulously avoided. I came across some cases where a little slip of glaze is also applied in certain portions by a brush so as to ensure a uniform application of the glaze on all parts. After the glaze is applied, the vessel is dried carefully and once again examined and the superfluous glaze is trimmed off and the article finally baked. The right type of colour is chosen by the potter himself according to the requirements of the consumer or in many cases his own personal taste and preference.

STAGE VII

High Temperature Baking

After the colouring process is completed, the vessels are dried and then baked in a special type of kiln and this process is known as 'High Temperature Baking'. At Karigiri, until a few months back, two types of kilns were being operated. The Government, in order to help the glaze potters, has constructed a cylindrical kiln for the use of potters which was in use until the first half of 1961. This kiln is shaped in the form of a cylinder 6′ in height. The walls are made of bricks 2′ thick and divided into two stages by a pierced flooring of clay. Both stages have openings. The upper stage holds the articles to be baked while the lower acts as a furnace, pierced at regular intervals by the fire places or mouth. There is an opening in the interior of the kiln where the flames and fuel gases are conducted upwards by enclosing a wall called the 'bag'. The top of the cylinder is domed over and certain outlets provided for the smoke to escape. The temperature in this kiln varies from 850°C to 1250°C. But for this type of high temperature baking, the clay now used by the potters was not useful, as the clay was apt to melt and the glaze run down and fuse into a congealed mass. Only the clay which was being imported by the Government into this village could withstand the high temperatures upto 1250°C. The articles which were produced in this kiln, made out of Bhimadole clay, were wonderful specimens of the art of the potter, having a magnificent fast colour, not likely to fade for a long time and were in great demand. Unfortunately, the potters did not take kindly to Bhimadole clay because of the relatively high cost of fuel, and preferred low temperature kilns and the Kaniyan Thangal clay and consequently the high temperature kiln has fallen into disuse. The products obtained from this low temperature kilns are, however, not as beautiful as those produced out of the Government kiln. The crude native hand-made kiln used by the potters in their homes to produce the glazed articles are similar to those

I have described in the first stage of manufacture with two exceptions. Firstly, the amount of fuel needed in order to raise the temperature within the kiln to 1000°C will be twice as much required for the first firing and secondly the small cones made of pottery mixtures as Felspar and China clay are placed within the kiln against a couple of spyholes, so that the temperature can be judged to a nicety when these cones bend and collapse. The manner in which the glazed articles are fired is as follows. The vessels are carefully placed in the oven in such a manner that no two vessels touch each other, for if there is contact between two glazed surfaces, the glaze will run into each other and spoil the effect. In some kinds of wares, the potters find it very difficult to avoid a slight spoiling of the glaze, but a careful handling in placing will appreciably reduce the damage to the minimum extent possible. After the vessels are placed in the oven on the broken bits of pottery, further bits of pottery are placed on top and the whole edifice sealed, with the sole exception of spy holes strategically placed to watch the cones for the purposes of judging the temperature. The fuel is then added and the firing commences. White ware is invariably placed in the outer ring together with some of the darker colours such as black and brown, but the bulk of the ware is placed in the inner ring between the centre of the oven and the outer circumference. Vessels with pink or purple glazes are fired in the cooler parts of the oven while blue, green and yellow wares, being less sensitive to extremes of temperature are placed in the inner ring. The vessels are heated not very rapidly, but the temperature is raised gradually as too quick a firing tends to spoil the vessels while too slow a firing leads to dulling of the glaze. The cooling is done rapidly in the beginning, but as soon as the glaze has solidified, the process is slowed down to obtain a more polished glaze with little risk of cracking. I have already mentioned about the small cones made of various pottery mixtures such as China clay, Quartz, Felspar which are placed within the kiln to test its temperature. These pottery mixtures are mixed in a definite proportion, so that they melt at a given temperature. These cones placed within the kiln are watched through spy holes and the temperature regulated as each one bends and collapses. When the collapse takes place, it is evident that a certain temperature has been reached. The cones are given various numbers to distinguish their grade and to determine the melting temperature.

Temperature CC	*Cone No.*
800°	09
1020°	014
1250°	04

"It is this ordeal of fire that adds excitement and glamour to the craft. There is always an element of uncertainty in dealing with such high temperatures while in the searching test of the kiln all sorts of hidden and unsuspected faults are brought to light. The clay may have been of uneven consistency and so caused uneven shrinkage and consequent warping or perhaps it contained air bubbles which blew up when heated. Shapes are too thick or too thin, glazes run down, peel off or blister, colours fade away or develop too strongly. All this and more may happen, but on the other hand, pots standing sound and true and colours unexpectedly lovely, make anxiety worthwhile."

Stage VIII

Finishing

The Glazed ware after removal from the cooled oven is carefully scrutinised to see whether it requires any finish, or decoration. Any roughness on the vessel may be removed by polishing or by over-glazing with a brush. The vessel is held in the left hand and taking a folded piece of cloth of 6 inches in length and 1½" in width or a smooth brush in the right hand, it is slowly and gently rubbed against the vessel to remove any rough surface or over-glazed decoration. Certain vessels may now be found to have been damaged or practically useless, or if the vessels have been subjected to more heat than necessary or have been allowed to remain in the oven for a longer time than the usual 8 hours, the glaze, green or yellow turns black in colour. The vessels are then finally kept in the shade and stored inside. They are now ready for sale. A lump of clay has been transformed through these 8 stages into a thing of beauty.

ECONOMICS OF PRODUCTION

CHAPTER III

The main raw material, clay is brought from Kanian Thangal at the rate of Rs. 25/- per ton. This is transported by lorries by all the six families and brought to the village. The transport charge amounts to Rs. 30/- per lorry load. The Cooperative Society advances money and pays the lorry to fetch the clay from Kanian Thangal. When the Government workshop was functioning, Bhimadole Clay was bought by the Government at the rate of Rs. 50/- per ton and given to the potters. The glazing chemicals like red lead, felspar and oxides of copper are purchased from Vellore by individual potters and Government also supplied them through firms at cheap rates. For each baking, the cost of fuel roughly works out to Rs. 20/- per family. When the unit was run by the Madras Government, the kilns were operated by using coal as the fuel but now the fuel used by the potters are cow-dung cakes and chopped wood which are procured locally by the potters. Appendix VI indicates the cost of production for a single baking, and its sale price. After examining the above appendix it is evident that the margin of profit for all the articles produced at a time is not high and consequently the potters are rather hard pressed to make both ends meet.

Wages

There is good cooperation among the family of glazed potters. They are keen in their duty and attend to the work with full devotion and enthusiasm. Before the formation of the cooperative society, they were selling their finished goods at varying prices, according to the demand. When they became members of the Society in 1956, they are employed as paid workers in the scale of Rs. 90/- per month. This income is not sufficient to satisfy their minimum requirements. Previously, they were able to earn more than Rs. 120/- per month by selling their goods in the open market. Their womenfolks assist their husbands in their work. They attend to such items of work as bringing clay, getting cow-dung, setting fire and drying the baked vessels. At present, any one who comes forward and advances money are welcome. But they must come through the Cooperative Society. The delivery of the finished goods are often delayed due to unavoidable circumstances, such as rainy weather and non-availability of raw-materials.

There are no master-potters who employ the other potters on daily wages or on piece-rate wages. All the 16 people are members ot the Cooperative Society; out of 16, six are employed as full-time paid workers and the other 10 work in their own homes with their own tools and raw materials and their finished products are purchased by the Society which in turn disposes the goods adding 20 to 25 per cent of profit. Most of their houses are situated in the main street of the village. They are not close to each other. The dwellings lack proper ventilation and sanitation. They have planned and built fairly big houses to store vessels and hence the houses, though big, are not convenient. They are not, as a rule, class-conscious and live amicably with their neighbours who belong to different castes like Gounders and Naidus. However, inter-caste marriages are not permitted.

Training of Artisans

Till the time of our survey, no facilities were available to train the Artisans of Karigiri as well as other young men of the Kumbhar community in Glazed pottery. The Government should provide a modern training centre to help them to produce superior pottery with attractive designs. Potter's wheel, ball-mill, pot-mill and uptodate machinery which are used for making fine quality of glazed pottery should be installed and training should be supervised by experts. One expert should be appointed to give design and colour scheme as the villagers are ignorant and illiterate. Lastly some of the craftsmen of Karigiri should be allowed to visit important pottery centres for higher training so that in turn they can train the other artisans of the village keeping in mind the traditional and modern trends.

Government Assistance

Finding that the number of potters practising the traditional craft at Karigiri was dwindling, the Government of Madras, in order to preserve this craft, came forward to help this community with finance and necessary technical assistance. A grant of Rs. 20,000 was sanctioned to the Glazed Pottery Co-operative Society. One big workshed (40′×20′) was constructed at a cost of Rs. 7,500/-. This workshed is situated on the west of the village. The site was purchased for Rs. 408/-. There are two entrances to the shed, one by the east and other by the north. The main entrance

is towards the latter. The workshed is surrounded by a small garden. In the hall, there is ample space to move about freely. At the entrance of the eastern door, two flying-wheels are fixed to the ground. By the side of it, heaps of Kaniyan Thangal Clay is kept in small bags. One or two steps further the vessels of the stage of biscuit baking are kept and arranged in a square.

At the centre of the hall, a show case is installed with full of different specimens of glazed pottery. These varieties which are exhibited are not produced in large numbers. Next to it, the glaze-baked vessels are arranged in squares. In front of the glazed vessels, the glazing chemicals along with the tools are kept. Next to it is an almirah full of samples of glazed pottery, colours, glaze and damaged goods. Opposite to it, a medium-sized electric kiln is found which was out of order during the time of our survey. Practically, the whole workshed is closed and even the electricity was cut off by the department as they failed to pay the electric bills.

In front of the eastern door, there is a brick-kiln made of hard bricks. The glaze articles are baked here and next to it is a smaller one used for biscuit-firing (low temperature). The following table will throw light upon the money spent by the Government.

	Rs.
Purchase of the site	408.88
Workshed	7500.00
Equipment	2365.51
Kiln	1093.61
Electric Kiln	1443.34
Office-cum-store room	1099.37
Show room	550.42
Furniture	131.77
Cycle	294.64

The workshed contains a store room where all the articles produced are stored for sale. The Government transported high quality of clay (Bhimadole Clay) for the benefit of the potters and employed an industrial Supervisor in Karigiri who is attached to the Cooperative Society to assist the potters in producing better and beautiful vessels according to the latest designs.

The articles produced by the workers are sold in the various emporia of the State Government at fixed prices. New designs were also taught to the potters. This workshed was functioning with modern tools like the improved potter's wheel, flying stick and moulds which were obtained from Kusum Industries Private Ltd., Calcutta and from other local blacksmiths and supplied to the workers. But unfortunately due to the relatively high cost of clay and fuel, the workers steadily boycotted this workshed and for the last six months, the workshed remains closed. The number of articles produced by the workers are also lying without clearance in the store room of this workshed.

Cooperative Society

As a result of the joint effort of the potters, a Cooperative Society was set up for their benefit. This Cooperative Society was started in the year 1956. Out of 16 members, only 6 members are paid workers, one member representing each family. Since the Government Workshop was closed in 1961, all of them are working in their own homes. Before the inception of the Society, when they were accepting orders and executing them, each one was able to earn roughly about Rs. 120/- per month. Now that they are employed as paid workers by the Cooperative Society, even with the dividend, they are unable to earn half this amount. It is because of this discontent that sometimes, without the knowledge of the Society, a few of them receive private orders to produce articles in small quantities or they sell a portion of the production in the open market to make both ends meet. The following is the working balance sheet of the Cooperative and Sales Society for the years 1957-58, 1958-59 and 1959-60.

Year	Production	Sales	Profit	Loss
	Rs. nP.	Rs. nP.	Rs. nP.	Rs. nP.
1957-58	1,123.35	1,118.31	...	5.4
1958-59	8,369.61	9,847.78	1,478.17	...
1959-60	6,737.88	5,075.99	...	1,662.09

From this it is apparent that whereas in 1958-59 the Society was able to show a profit of Rs. 1,500/-, in the next year it has incurred a loss of Rs. 1,700/-. This is mainly due to lack of response from its members and the execution of private orders to the exclusion of the Society. This trend is being repeated during 1960-61 also. This only goes to show that a Cooperative Society for six families cannot work well without other forms of Governmental assistance. The Society will have to explore more avenues of marketing, increase wages, give more loans to its members and obtain Governmental backing before it can rehabilitate itself in the eyes of its members. For the present, the Cooperative Society collects orders from private individuals and from the Government Emporia in

Madras and instructs its six paid members to execute the orders. The finished products are collected and sent to the buyers, the price being fixed at 20% above the cost price. This is exclusive of the private orders undertaken by the individual ten potters who are non-paid members, where the finished products are directly handed over to the purchaser. Finally, it is suggested that the ten non-paid member potters working in their homes should be compulsorily admitted along with the six paid members employed by the Society. All should join together and start production of the articles in demand. The terms of the society are not attractive to tempt them to become paid members. There should be an expert or master potter to devise designs and colours to suit the changing tastes and fashions of the modern era.

Marketing

The potters stated that the living conditions nowadays were rather bad for them and they were unable to make both ends meet by producing the glazed ware of Karigiri. Even though the articles produced by them were famous, they were of the opinion that it had a restricted demand as only a few foreign tourists and some of the well-to-do persons were purchasing them as table decorations or mementos. Articles of daily use are in greater demand and being less costly than the glazed ware, fetched a better market and the producers were assured of a steady demand. It is in this context that they were envious of the other potters working in other districts producing ordinary red pottery. Raw materials were available for production of red pottery easily and the final product was also cheap. Since red pottery is in continuous demand, the potter is kept busy throughout the year and earns enough, to maintain himself in decent comfort. It is this reason which has made more and more skilled persons of glazed pottery to take to the production of red pottery in other districts. Unless the Government steps forward and do something to these potters by way of giving them assistance to produce their articles according to their own designs and in their home-made kiln, without insisting that they utilise the Government kiln and spend more by way of raw materials and fuel, it would be tragic indeed, for the craft will cease to exist. That this is not the grim prophesy of a Cassandra is borne out by the fact that to-day there are only six separate families of 16 persons—14 males and 2 females—engaged in the craft and according to their own admission quite a few of their kith and kin have migrated to other parts of the district, and to Tirunelveli in search of other avocations such as producing red and black pottery of daily use.

Conclusion

Fashioning of glazed potteryware is a hereditary avocation and calls fore innate and inborn skill. This skill is handed down from generation to generation. In many parts of India like Gujrendwala, Hoshiarpur and Karnal, glazed potteryware is being manufactured. But, in the South, Karigiri is famed for its glazed pottery and possesses certain features which distinguishes it from pottery produeed elsewhere. The ingredients of the glaze, the articles fashioned and the colour of the ware—all differ from place to place. The unique features of Karigiri pottery require no repetition. It is the skill which permits the potters of Karigiri to produce a unique kind of glazed ware which is handed down from father to son.

In spite of the great importance of this craft and the Governmental assistance, the future of the glazed pottery seems to be uncertain, mainly because of the lack of financial assistance and the reluctance of the potters to change their traditional methods of production. Since the making of pottery can never be mechanised as the raw material, clay, can never be fashioned into jugs or vases by means of machines, this skill has to be acquired by patient study and application. That this skill is not a hereditary monopoly and can be acquired by others, though to a lesser extent, has been proved by the student potters working in the School of Arts and Crafts of the Madras Government. The clay used for the ware is also of high quality and so the articles produced here compete successfully with those of Karigiri and those produced in other parts of India.

If the Government were to encourage these potters to use a better variety of clay, teach them modern methods of firing and also make them adopt newer designs without sacrificing their traditional designs, this industry can once again be made to stand on its own legs. After all, the charm of the handicraft lies in the fashioning of the articles in the home adopting native methods of production. In spite of all opposition, this craft which has survived the onslaught of time and fashion for the past 400 years should be fostered and made to prosper further by way of Governmental assistance. The All-India Handicrafts Board, an organisation of the Government of India under the

Ministry of Commerce and Industry is keenly interested in developing this craft. If it is possible to export these products to outside countries so as to fetch a wider market, it is quite likely that this craft may once again prosper. However, due to its extremely fragile nature, it is not possibie to export them in large quantities to other countries. The Central Handicrafts Development Centre is now engaged in [illegible] research to find a raw material [illegible] to withstand the strains of tran[illegible] the traditional shapes and designs this pot[illegible] be made less fragile and fit for export [illegible] countries. When this is done, the futur[illegible] may be assured.

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CONNEMARA P...
10 FEB 1966
MADRAS

The traditional Magic Kooja of limped blue colour with two green vases. Note also the modern ornamental boat.

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MADRAS

The Magic Kooja along with the two inkpot stands. The sparrows perching on the stands add additional glamour to them.

CONNEMARA P... LI...
0 FEB 1966
MADRAS

A superb jar with excellent finish along with "Lord Krishna" flower vases.

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MADRAS

Beautiful flower vases glazed in different colours with floral designs on the outer surface.

CONNEMA ... 10 FEB 1966 MADRAS

Examples of Modern Flower vases designed after the models of a shoe, a boat and a tree trunk.

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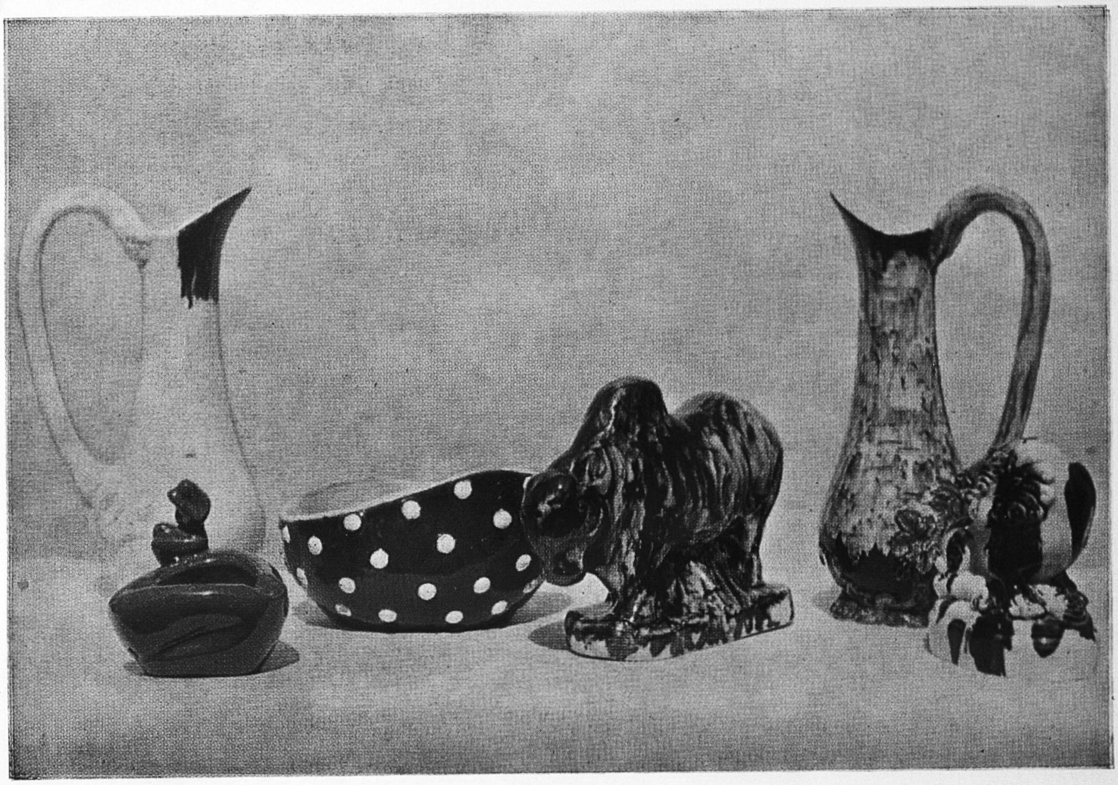

A group of Modern Glazed pottery wares of different colours and designs.

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Traditional Designs: Among the articles are, a fine green dish, Golden fish, Blue plate, and a green Surahi (Waterjug).

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A dummy zoo consisting of various Glazed pottery animals.

Appendice.

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An unsurpassed model of woman of peerless beauty.

APPENDIX—I

DISTRIBUTION OF POTTERS' COMMUNITY

Name of the caste or community	Number of villages surveyed	Approximate number of families	Total number of adult workers			Number of family workers working under Cooperative Society	Number of families working in their own houses
			Persons	Males	Females		
1	2	3	4	5	6	7	8
Udayar	1	6	16	14	2	6	10

APPENDIX—II

MAIN MATERIALS AND SUBSIDIARY MATERIALS REQUIRED FOR GLAZED POTTERY OF KARIGIRI

Name of the material	Use of the material	From where it is got	Cost of the material per unit	How it is produced
(1)	(2)	(3)	(4)	(5)
MAIN MATERIALS				
1. Bhimadole Clay	It is used to produce high class acid resisting pottery	It is imported from Andhra State	Rs. 50/–per ton	It is produced by the geological weathering of the earth, a gift of Nature.
2. Kaniyan Thangal Clay	It is noted for its softness and plasticity and helps to produce a remarkably strong pottery.	It is imported from Chingleput district near Madras.	Rs. 25/– per ton	–do–
3. Red lead	It is melted with other materials grounded and added with colouring ingredients to prepare glazing mixture.	...	...	...
SUBSIDIARY MATERIALS				
4. Thorn-wood	It is used to fire the pottery	It is purchased locally	One bundle costs Rs. 0.37	It is a natural growth in the jungles, collected and sold to potters in bundles.
5. Cowdung cakes	It is used for spreading on the pots and to bake it.	–do–	one hundred costs Rs. 2.50.	Excrement of cows mixed with straw and dried in open Sun.
6. Straw	–do–	–do–	One bundle costs 0.10 nP.	After harvest, stems of paddy husk are dried and bundles prepared.
7. Plaster of Paris	It is used to make moulds of various types.	Purchased from Vriddachalam.	100 lbs. cost Rs. 5/–	It is made out of Gypsum
8. Firewood	It is used to fire the kiln	Purchased locally	56 lbs. cost Rs. 0.75 nP	Natural growth of trees.

APPENDIX III

IMPORTANT TOOLS

Sl. No	Name of the tool	Name of the tool-maker	Where it is manufactured	Cost of the tool	Use of the tool
	1	2	3	4	5
Throwing Tool					
1.	Potters wheel	Potter	Locally	Rs. 10/	The lump of clay is thrown on the wheel and is rotated at any desired speed to fashion the vessels.
Shaping and Carving Tool					
2.	Shaping wood	Potter	-do-	...	To give a smooth finish and accurate shape.
3.	Aro-blade	Blacksmith	-do-	0.37 nP.	To carve out extra designs
Moulding Tool					
4.	Plaster mould	Potter	-do-	1.50 nP.	Clay is filled in the Plaster of Paris mould and pressed hard to get the necessary shape.
Cutting Too					
5.	Wire	Company	Vellore	0.20 nP. per yard	To remove the article from the wheel.
Baking Tool					
6.	Kiln	Mason	Locally	Rs. 1500/	Vessels are arranged and baked in it at temperature ranging from 800°C to 900°C
Polishing Tool					
7.	Brush	Company	Vellore	0.75 nP.	To polish the articles and to remove over-glaze decorations.
Storing Tools					
8.	Bucket	-do-	-do-	Rs. 12/-	To store clay, water and glaze
9.	Basin	-do-	-do-	Rs. 8/-	To mix clay and glaze materials.

APPENDIX IV

TRADITIONAL AND MODERN ARTICLES AT KARIGIRI

Name of the Article	Size of the article in height	Price Rs. nP.
Traditional		
1. Artistic Magic kooja	14″	3 . 75
2. Fancy Flower Vase	9″	2 . 50
3. Chillums	8″	0 . 75
4. Pickle Jar	14″	3 . 00
5. Artistic dish	6″	3 . 25
Modern		
1. Japan fish	2½″	1 . 25
2. Swan	5″	2 . 00
3. Ash Tray	2½″	0 . 75
4. Wall Brackets	9″	2 . 50
5. Buddha's Head	9″	3 . 00

APPENDIX V

COST OF PRODUCTION OF FAMED ARTICLES OF KARIGIRI

Name of the article	Size	Clay	Cost of firing (low temperature)	Cost of Glazing	Cost of firing (high temperature)	Wages	Total	Sale price	Profit	Time (from wheel work to glazing stage)
			Rs.nP.	Rs.nP.	Rs.nP.	Rs.nP.	Rs.nP.	Rs.nP.	Rs.nP.	
1. Magic kooja	14″	10 nP.	0.30	0.75	0.60	1.50	3.25	3.75	0.50	1½ hours
2. Pickle jar	14″	10 nP.	0.30	0.60	0.50	1.00	2.50	3.00	0.50	1 hour
3. Fancy flower vase	9″	10 nP.	0.25	0.60	0.40	0.75	2.10	2.50	0.40	45 minutes
4. Artistic dish	6″	10 nP.	0.30	0.75	0.50	1.12	2.77	3.25	0.48	1½ hours
5. Chillum	6″	3 nP.	0.10	0.10	0.15	0.25	0.63	0.75	0.12	30 minutes
6. Japan fish	6″	3 nP.	0.10	0.25	0.20	0.50	1.08	1.25	0.17	30 minutes
7. Wall bracket	9″	10 nP.	0.25	0.50	0.50	0.75	2.10	2.50	0.40	40 minutes
8. Swan	5″	5 nP.	0.20	0.30	0.25	0.75	1.55	2.00	0.45	1 hour
9. Ash tray	2½″	3 nP.	0.10	0.10	0.15	0.25	0.63	0.75	0.12	30 minutes
10. Buddha's head	9″	10 nP.	0.30	0.60	0.50	1.00	2.50	3.00	0.50	1¾ hours

APPENDIX VI

COST OF ONE BAKING

			Rs. nP.
Fuel for one baking	...	...	25 . 00
Clay and carriage	...	...	15 . 00
Ingredients for glaze and fuel for melting it		...	65 . 00
Other minor expenses: viz. purchase of cones to measure the temperature	...	...	10 . 00
Total cost of production		...	115 . 00

The articles produced are sold as follows :—

			Rs. nP.
10 koojas sold at Rs. 3.75	...	...	37 . 50
25 vases at Rs. 2.50	...	...	62 . 50
5 Tea sets at Rs. 8.50	...	...	42 . 50
25 Ash trays at Rs. 1.25	...	...	31 . 25
	Total	...	173 . 75
Deduct 10% for spoilt articles as depreciation charges		...	17 . 38
			156 . 37
Sale price	...	...	156 . 37
Cost price	...	...	115 . 00
	Profit for one baking	...	41 . 37

APPENDIX VII

LIST OF VERY SKILLED CRAFTSMEN IN THE VILLAGE

1. Sri A. Ponnuswamy
2. Sri R. Swaminathan
3. Sri K. M. Venkatesan
4. Sri A. Vagar Velu/A. Vajravelu
5. Sri K. Palani

PART II

LACQUER COATED AND RED POTTERY OF KARUKURICHI

CHAPTER I

Introduction

As we take the road from Shermadevi, the divisional headquarters of the Sub-Collector in Tirunelveli district, to Ambasamudram, the headquarters of a taluk of thc same name in this district, we have to pass through a small village called Karukurichi. Karukurichi is 18 miles from Tirunelveli, the district headquarters, 10 miles from Ambasamudram, the taluk headquarters, and only 3 miles from Shermadevi the divisional headquarters. It is easily approachable as buses ply regularly on this road. At first sight, this village hardly interests us as it is like any other village. On a closer scruitiny, we see a small work-shed set to the left of the road with a pucca building beside it, and with a name board which says it houses the Co-operative Society of the Potters of Karukurichi.

The origin of the industry dates back to more than 500 years. The Kulalars or Kumbhars who were residing in these places were producing ordinary pottery for day-to-day use which was sold locally. Before the Kandian canal was dug these potters were living to the north of the Agraharam or Brahmin quarters which is now 6 furlongs away from the potters' colony. The fertile lands near the Kandian tank attracted some Brahmins who came and gradually forced the potters out of this fertile area. In turn the Brahmins purchased land 6 furlongs away from this area and handed them over to the Velars or Kulalars to settle down and practise their traditional craft. Though the Velars were driven out, yet their temple exists in the area, the presiding deity being Chembakavalli Ammal. There is another legend connected with this shift in residence. In those days, there was supposed to have lived a few families belonging to the Kulalar community. The members of the Kulalar Community were Known to be expert potters. Their residences were situated to the north of the Brahmin Agraharam. Among the Kulalars lived a man who did not have a heir to preserve his name. So he went and worshipped Lord Sankiteswara and as a result of his piety, the Lord granted him a boon according to which he was presented with a male child. As a token of gratitude, the entire potter community shifted their residence to the street adjacent to the temple of Lord Sankiteswara.

Regarding the etymology of the village of Karukurichi, a story is current that centuries back, there was a village known as Sundaresapuram which was ruled over by a Canarese King. The King decided to dig a canal to bring waters from the Tamparaparni river. In his attempt to construct the canal, he was helped by a black cow with a black tongue which seemed to have appeared from Karukurichi (A place with clouded hills) and sought its shelter in a particular place. Later in gratitude the King dug a tank at the exact spot where the black cow took shelter. The black cow was considered as the instrument for all the achievements of the King, and that day the place was renamed as Karukurichi.

The Velar Caste has three branches–Chera, Chola and Pandya. The Kulalar potters belong to the Chera Velar caste which is considered to be the highest among the three sections. In this village, pottery is carried on by 25 families consisting of 61 persons. Of these, 22 are males and 29 females and 10 children. 22 families are members of the Cooperative Society while 3 work in the kilns in their own houses. The 22 families who are the members of the Cooperative Society use the kiln and other tools of the Society free of charge. Their work is calculated on piece rate basis and wages paid once in a week. There is no other pottery production unit in the village.

TECHNIQUES OF PRODUCTION

CHAPTER II

Clay

Clay is the main ingredient for producing any type of pottery. Three types of clay are used in the fashioning of Karukurichi pottery-ware. They are (1) Grey clay fetched from Movai Kulam, two miles away from the Cooperative Society (2) Red Clay from Netturankulam, Udayakulam and Talasaikulam situated between 1–1½ miles from the Society and (3) Sandy clay gathered from any area round about the village. The Kulams and other places from which clay is dug belong to Government and as such, no restrictions are imposed on the potters getting the raw material. The best season for the removal of the clay begins from July and lasts till August. During these months, it is found convenient by the potters to remove mud by lorries or by cart before the onset of the monsoon. Normally, one lorry holds between 8 to 10 cart loads of clay and it costs on an average to the Society Rs. 12 to 15 not only for removing the clay but also for the loading, unloading and transportation. The carts are less costly. One cart-load of clay costs Rs. 0.75 np. including transportation, loading and unloading charges. For the bulk supply of raw materials, the Society finds it more convenient and economical to fetch the clay by lorries rather than by carts. The Cooperative Society bears the charges for the removal of the clay from the tanks and supplies it free of charge to all its members. It roughly costs them between Rs. 2,000/- to Rs. 3,000/- per year. Since out of 25 families, 22 belong to the Cooperative Society, and only 3 are non-members, the description of the technique is primarily confined to those working in the Society. For the 3 independent artisan families it is cheaper to transport the clay by carts. But since bulk supplies cannot be effected, overhead charges are probably higher in their case.

Among the three types of clay mentioned above, grey and red clay are considered to be the best and most suitable for ordinary red as well as for shellac coated pottery-ware, as it is more plastic, soft and light. Grey clay is superior compared to red because it acquires a lustre when mixed with the proper amount of water and sand. Articles of 4′ in height can also be shaped out of it. Sandy clay is normally mixed with the other two types of clay to prevent cracking of the articles when fired. The formula of mixing sandy clay is as follows:

Grey Clay	40%
Red Clay	40%
Sandy Clay	20%

The main reasons for the fame of the Karukurichi pottery are the novel shape or designs turned out in this place, the improved techniques adopted and the very nature of the clay which secures more durable and better finished products. The quality of the clay is that it is not only plastic by nature, but also shrinks well when dried and shrinks more when fired, thus producing articles of utilitarian value. However, of late, the potters of Karukurichi are finding it difficult to get good red clay for, within a radius of one mile, 7 tile factories have come up in Karukurichi village which utilise the tanks to their advantage in getting red clay. No potter family has shifted from the traditional occupation to the tile factory as workers. The potters of Karukurichi are forced to fetch red clay from other villages such as Pattandadu, Govindaperi and Pudukeraman which lie at a distance of 8–10 miles from Karukurichi. Therefore, the cost of transporting clay increases and now the charges are Rs. 16/- per lorry compared to Rs. 12/- which were being paid earlier.

After fetching the clay from the various tanks round about Karukurichi by lorries, carts and headlaods on hired labour, it is stored in an open place inside the compound of the Cooperativc Society as well as in a separate corner in the house of the independant potter. As far as the Cooperative Society is concerned, the clay stored will be sufficient for a year. Unfortunately there is no adequate place to store the clay away from sunlight, wind and rains with the result during stormy seasons much of the clay is washed away or it becomes dry quickly. If some separate clay tank is provided, the clay can be stored up for a longer period without much of loss and it can retain its plasticity for a longer time.

Shellac

The other important raw material used in the manufacture of the Karukurichi-ware is shellac. It is purchased from the Madras Drug Store at Madras City as also from the Government Lac Research Institute

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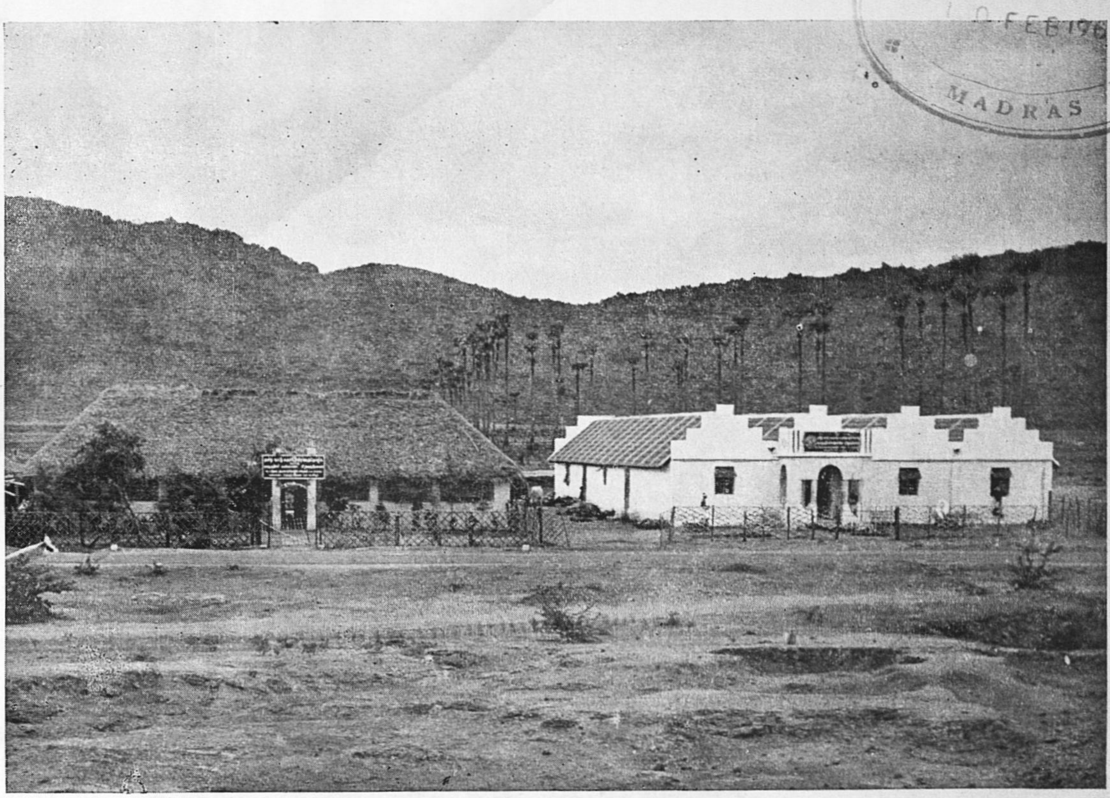

Eighteen miles from Tirunelveli, the district headquarters, and ten miles from Ambasamudram, the taluk headquarters lies the little village called Karakurichi.

The temple of Lord Sankiteswara in Karakurichi who granted the boon of a male child to preserve the line of Kulalar community.

Three types of clay—grey, red and sandy—are mixed together in the proportion of 2 : 2 : 1 with a little amount of water.

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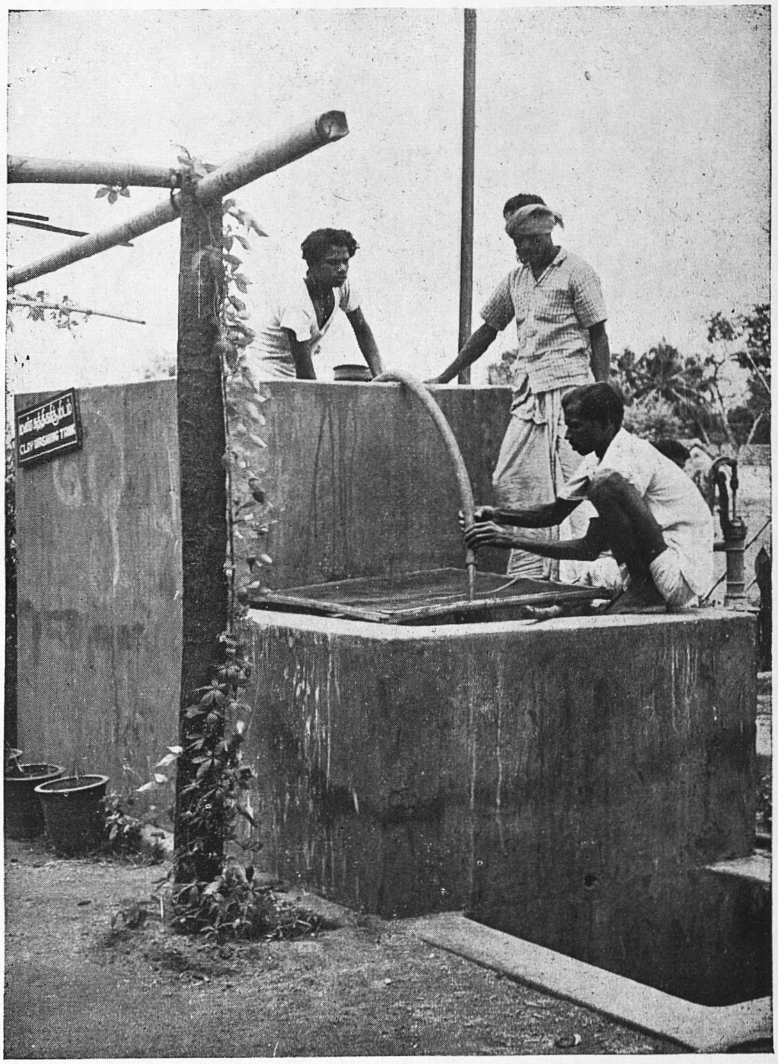
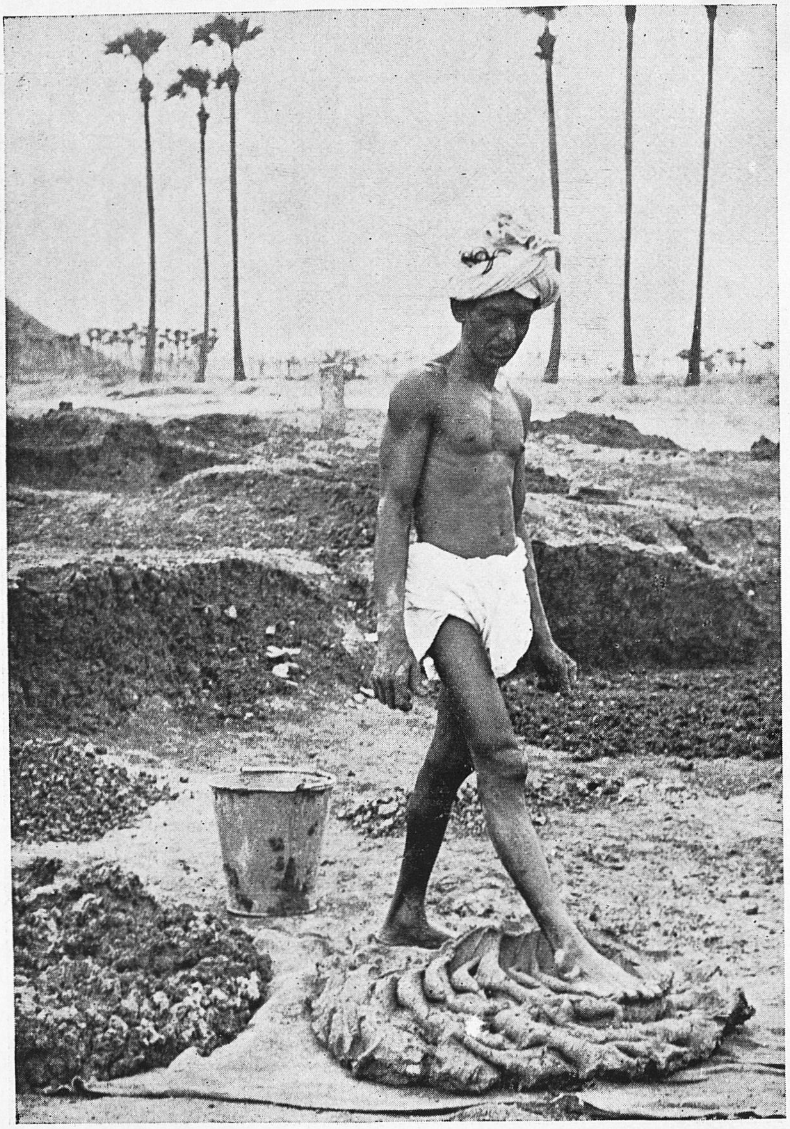


Liquid clay is then syphoned by the help of three potters in a clay washing tank on to a sieve adjacent below to remove its impurities.



A potter is kneading the clay, adding some water by his feet.

at Ranchi, Bihar. The latter is of very good quality, but, it is difficult to ensure a steady supply. So the potters go in for the former variety. Shellac is mixed with Liquor Ammonia and water and used to coat the articles. The other subsidiary raw materials are Chopped wood, Plaster of Paris, Thorn wood and straw purchased locally. These articles have been individually described in the manufacture of Glazed pottery-ware and need not be repeated here.

Tools and Implements

The tools needed are simple and are identical for all types of pottery, both glazed and unglazed. In Karukurichi, we come across three kinds of wheels, viz., ordinary wheel, improved type of wheel with ball bearing and cycle driven wheel and also beating stones and beating planks which are not found in Karigiri. The Cooperative Society possesses all the tools and raw materials and supplies them to its members free of charge. Majority of the potters work in the premises of the Cooperative Societies. Some members work in their own homes with the tools and raw materials as there is no sufficient place in the Society's shed to work with comfort. The following is the description of some of the tools which are used in Karukurichi.

Ordinary Wheel

From many centuries the potters of Karukurichi were producing, red pottery of daily use on an ordinary wheel. It is composed of several thin pliable pieces of wood or bamboos bent and tied together in the form of a wheel about 2 feet in diameter. Its bottom is of wooden stand fixed in a stone hole. There was some improvement on this model by adding a wooden stand with iron axle and iron ball bearings. Even this did not match the improved wheel of Kallupatti as the frame is not permanently attached to the bottom stand. If set in motion at the high speed, the frame comes out from the sand. When the potter takes the clay and throws on the wheel his hands must immeditely go into action and as such he has no time to rotate it at top speed, since the axle is of iron, and there is no depression to fit a stick in it. So he needs the help of a co-worker who sits opposite to him and keeps the wheel turning by both hands. Thus much time and labour is wasted as he has to take the help of another worker.

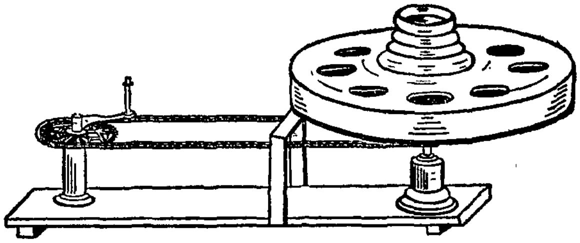
With many defects the ordinary wheels are popular with the potters because they have been accustomed to using it from generation to generation. After the formation of the Cooperative Society the other types have been introduced and it is hoped that within a decade the ordinary wheel will give place to the inproved type of Kallupatti wheel.

Improved Pottery Wheel

This wheel is known as Kallupatti wheel made in Kallupatti Gandhi Ashram. It is just becoming popular among the Karukurichi potters. It rotates with high speed without the help of a co-worker, thus saving time and labour. The stand at the bottom is of steel casting and the frame is of clay and wood with iron ball bearings. It costs Rs. 100/-.

Cycle-driven Wheel

Cycle-driven wheel is not popular and they have no experience to handle it. It is lying idle for a long time. It has to be repaired. It is made of steel and



Cycle-driven Wheel

iron and requires the help of a co-worker to drive it. The handle is attached to the cycle chain. It costs Rs. 150/- and is made in Dharwar.

Beating Stone

A polished stone of one lb. weight is held in the left hand which receives the shocks of beating with the bat, as the soft clay spreads out. The stone is available locally in the surroundings.

Beating Plank

The vessel rests on the beating stone and the potter, taking the beating plank of 1 ft. in length applies water to the soft clay at the bottom, slowly and gently beats with the right hand and the pot is rotated as it receives the shocks. It is locally manufactured and supplied by a carpenter at a cost of Rs. 0.75 paise per bat.

MANUFACTURING PROCESS

STAGE 1

Preparation of Clay

Large quantities of the three types of clay which had been brought and stored in the open space

for a few months are first taken and then grey clay, red clay and sandy clay are mixed together in the proportion of 2: 2: 1 with a little amount of water. The mixed clay is taken to the washing tank situated outside the Cooperative Society and deposited into it. Water is then poured into it and the clay is thoroughly mixed with water. This liquid clay is then syphoned on to a sieve placed on top of another tank constructed below the clay pit. The sieve filters small stones and other impurities like grass, roots etc., which are normally found in dug-out clay, allowing only the pure clay mixture to fill the tank. The sieved liquid clay is allowed to remain in the tank for sedimentation. This clay is scraped and exposed to sunlight for a few hours in order to drive out its moisture. A little water is sprinkled over the clay and it is left in a heap for 6 hours. Afterwards, with constant addition of small amounts of water, the clay is kneaded by legs and hands and trampled thoroughly, any remaining coarse and unsoluble particles being removed at this stage. This kneaded clay is then collected in small lump and once again allowed to dry in the shade, so that superfluous moisture is driven out. The clay would have now attained a smoothness and plasticity fit to be taken to the potter's wheel.

In the case of potters not belonging to the Cooperative Society who do not have the benefits of the sedimentation tank, a crude method is adopted to remove impurities. The clay is broken up and impurities are removed by hand without sieving it. Then the other processes are repeated. However, since the clay is not soft, a larger amount of impurities remain with the result that the pottery-ware produced by the potters not belonging to the Cooperative Society is bound to be cruder than those produced at the Cooperative Unit and further the amount of wastage due to cracking is also more.

As the premises of the Cooperative Society is not sufficient for all the members to work, some members take the clay and tools supplied by the Society to their own households and return it after turning it on the wheels.

STAGE II

Throwing

For red pottery or ordinary pottery of daily use any type of wheel can be used. The method is very simple. The potter sits in comfort beside his wheel. He takes a lump of prepared clay and throws it on the revolving wheel. His partner sits in front of him and sets the wheel in motion by giving a few vigorous twists with both his hands. The wheel starts spinning for two or three minutes, during which the potter presses the clay with both his hands and raises the level to a specific height. It is now that the skilled fingers of the potter comes into play and he fashions the article to the desired shape and size. To describe it more specifically, a ball of clay is pressed by the fingers and squeezed initially into a cone. A hole is then made in the clay and it widens out into the shape of a cup. With the left hand inside the cup and the right hand outside, the two hands are gradually raised and the clay rises in between these hands cylindrically. Then by gradually adjusting the pressure of the hands inside and outside the clay, while spinning on the wheel the article takes the required shape. It is then removed from the wheel by cutting it by means of a wire and is allowed to dry for one hour. If we examine a vessel removed from the potter's wheel, we notice it has a hole at the bottom, the reason being that the clay is too soft to handle at this stage. Enough clay is left at the bottom for completing the beating operation. The beating operation is completed by carefully rounding the bottom with the beating tool and the pot is dried in the open sun.

STAGE III

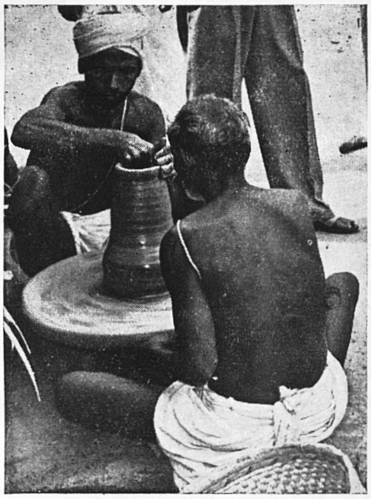
Beating Operation

The pot is now taken and the wife of the potter holding a polished stone in her left hand, spurts the soft clay left at the bottom and with the application of a little water, spreads it all around. She then takes an oblong bat in the right hand and rotating the pot resting on the polished stone in her left hand, slowly and steadily beats the bottom of the pot gently in such a manner that the clay spreads out. The walls of these pots are normally thin but strong. The beating is done very carefully and smoothly so that the thickness is uniform. The polished stone on which the vessel rests takes the shock and transmits it to other parts of the vessel uniformly. After this is done, the vessels are once again dried for a few hours in the shade.

STAGE IV

Designs

Some of the designs are very attractive. It was all due to the services and personal interest taken by the Ceramic Supervisor Sri P. Narayanan, aged about 30 Years. He underwent training at Kanapur in Belgaum district of Mysore State and was posted to Karukurichi Model Pottery Production Centre in 1957. His services were very helpful to the potters. Before his arrival, they were producing



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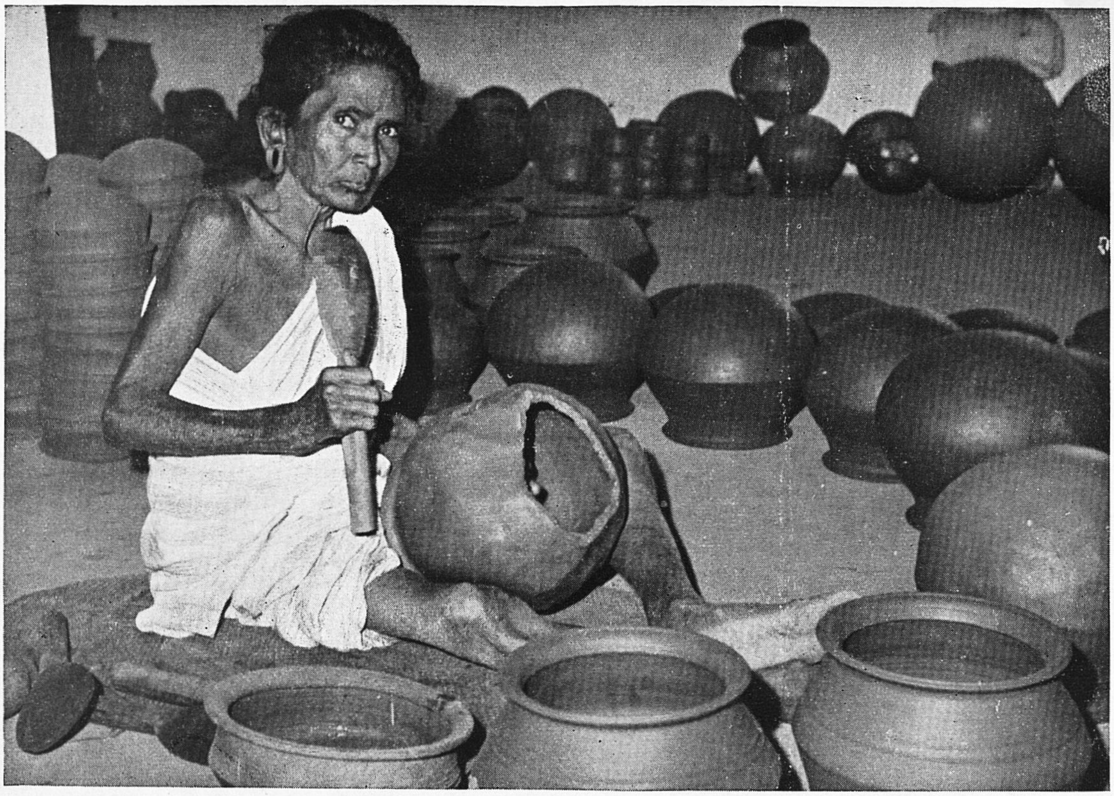
The prepared clay is taken in lump and thrown on the revolving wheel. Note here the potters wheel demands the assistance of a co-worker to set the wheel into motion. No stick is used to revolve this particular type of wheel.

It is here that the skilled fingers of the master potter come into play and he fashions the article to the desired shape and size.



The old lady holds a polished stone in her left hand inside the pot to take the shock and an oblong bat to beat the bottom of the hole.

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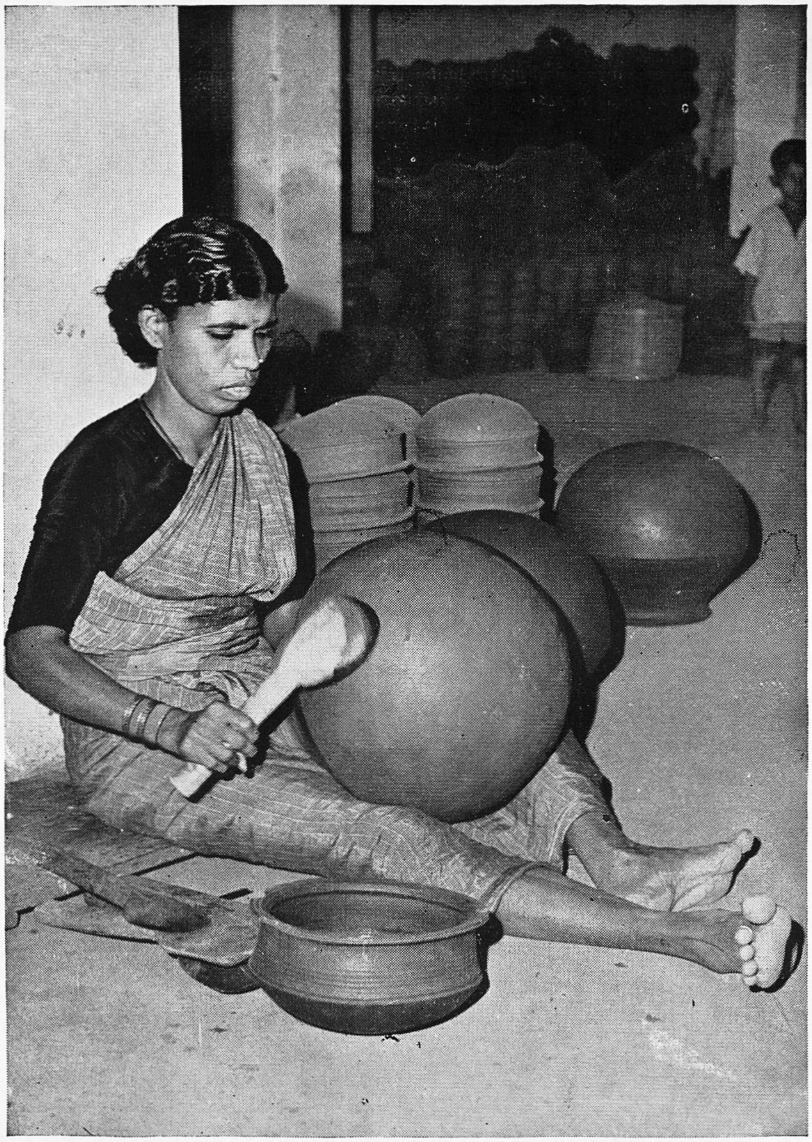
A woman rotates the pot by her left hand and slowly and steadily beats the bottom of the pot which makes the clay spread out on all directions, and thereby the texture of the pot becomes thin.



At the final stage of beating, it is handled carefully in order to make the pot larger and of an uniform thickness. Beating the vessels is always the monopoly of women.

ordinary pottery which was for local use and sale. He introduced modern designs and lacquer work here. In Kanapur, he has specialised in lacquer work. The designs of refrigerator, kettle, cups and saucers which we find in Karukurichi is taken from Kanapur.

At present, there are 10 potters who have mastered modern designs among whom the master craftsman is Sri T. Sundara Velar. People have never failed to admire the style with which he handles the dark coarse clay. He produces a number of fancy articles, and is capable of imaginative work.

The following are the names of Traditional and Modern articles with their prices, sizes and time taken for the manufacture of each article.

Name of article		Traditional/ Modern	Time taken	Size	Price Rs.nP.
1. Cup and Saucer	Lacquer	Traditional	15 Minutes	4″	0.25
2. Tea Cups	„	„	10 „	3″	0.20
3. Milk Jug	„	„	15 „	8″	0.25
4. Tea Kettle	„	„	20 „	5″	0.50
5. Sugar Pot	„	„	20 „	5″	0.20
6. Special Small Kooja	„	„	10 „	9″	0.31
7. Chetty (One measure)	„	„	5 „	8″	0.25
8. Hanging Pot	„	„	10 „	9″	0.31
9. Refrigerator	„	Modern	2 Hours	2½″	2.25
10. Small Refrigerator	„	„	3 „	3′	4.50
11. Small Refrigerator with Tap	„	„	3½ „	3′	14.00
12. Asoka Wheel Jar	„	„	2 „	10″	2.25
13. Fancy Kooja with animal head	„	„	½ „	13″	1.25
14. Water Tub (Nizamabad model)	„	„	15 Minutes	5″	1.50
15. Mahan Choola	„	„	1½ Hours	14″	3.50
16. Tray	„	Traditional	15 Minutes	3″	1.00
17. Fish Kooja	„	„	½ Hour	12″	2.00
18. Asoka Pillar	„	„	1 „	12″	4.00
19. Asoka Pillar Water Pot with Tap (Lacquer)		„	3½ Hours	12″	7.00

STAGE V

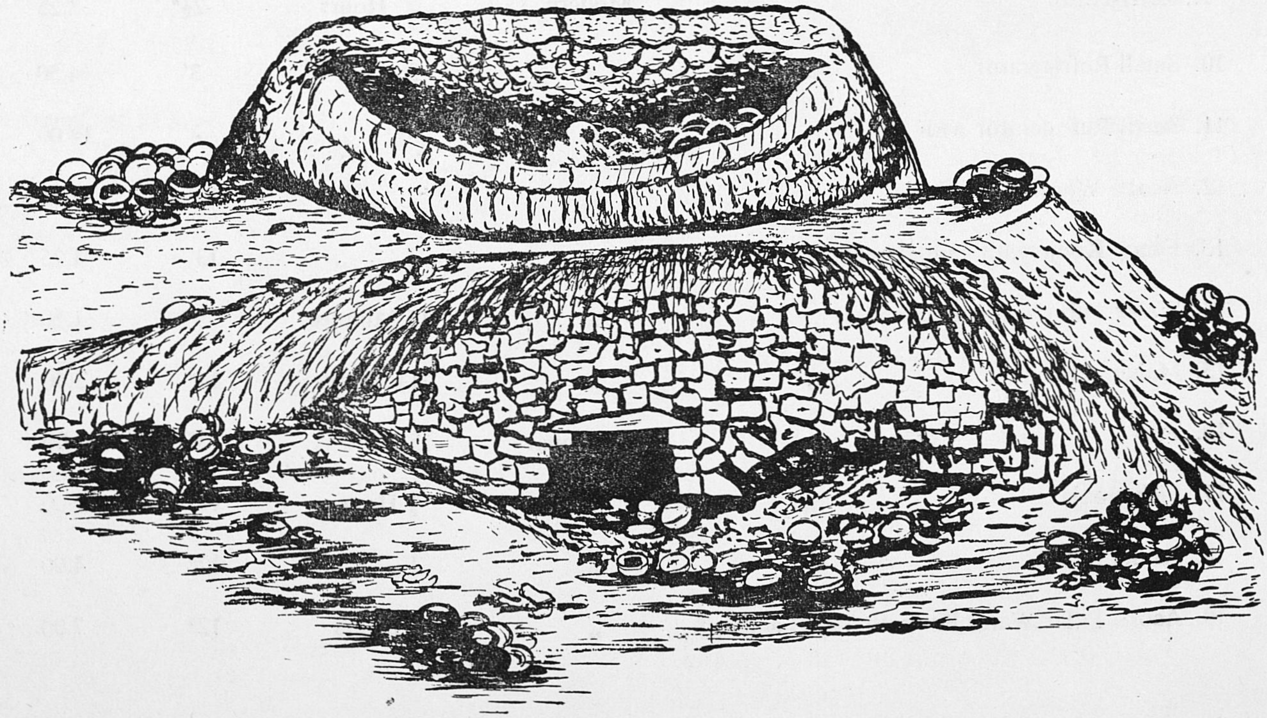
Red ochre Coating

After drying the beaten vessels, they are taken out and liquid mud having the colour of red ochre is taken and applied uniformly with a piece of cloth soaked in the liquid. It is this red mud which turns the vessels into red. It is fetched from neighbouring villages where the soil is red in colour. One cartload of red mud costs Rs. 2.50. This red mud serves the twin purpose. It not only gives the necessary red colour but also ensures that the pot is of uniform fitness after baking is over. It is at this stage that full care is taken, that not a single drop of water falls over these coated pots lest the vessels crack within few minutes.

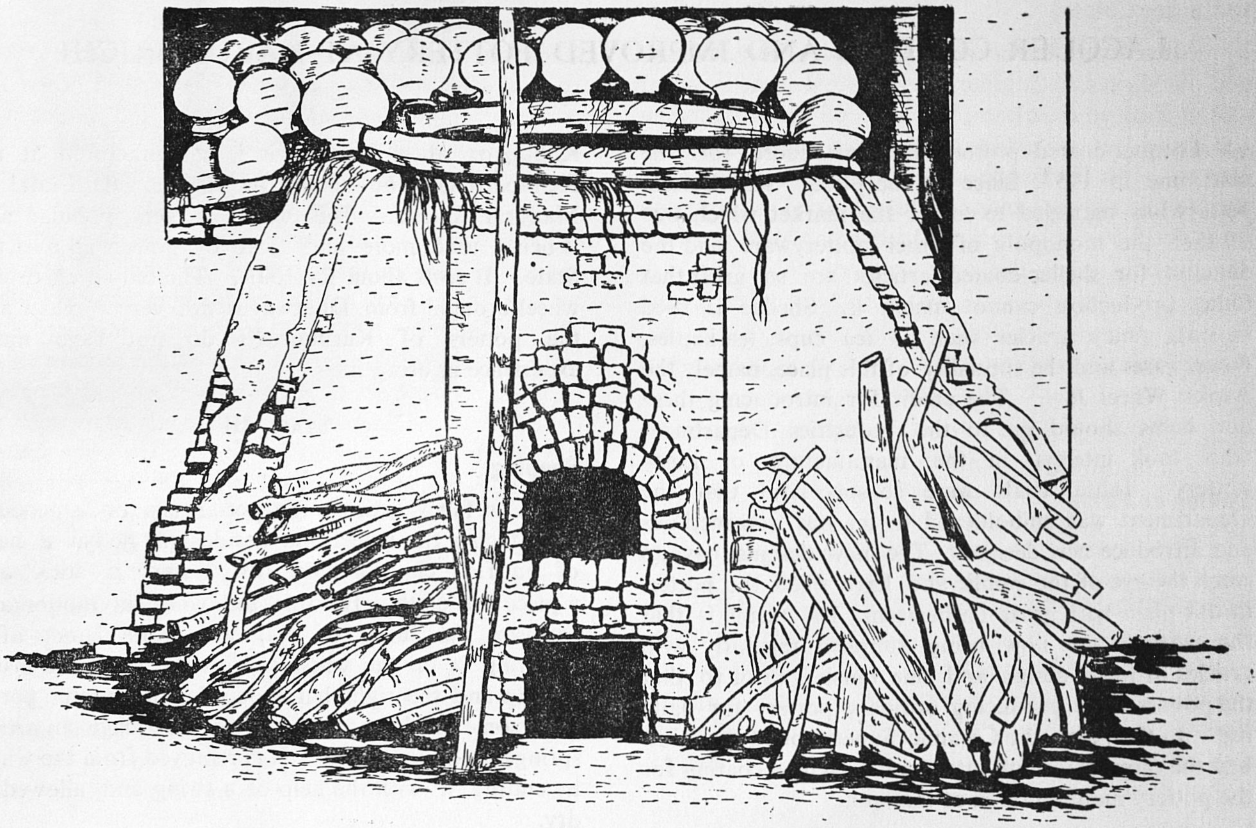
STAGE VI

Baking or Firing

Now comes the most important stage in the manufacture of potterywares, viz., firing of articles in the kiln. There are two kilns now after the formation of the Cooperative Society at Karukurichi. When the number of pots to be produced reaches a high water mark, ordinary red pottery is fired in the country kiln which is a circular shaped one. Out of the two kilns inside this compound, one was built by the Industries Department in 1958 while the other was built by the Cooperative Society in 1962. (For the description of improved kiln, please see High Temperature Baking on Karigiri Glazed Pottery Report.) Each kiln needs special care. The pots are left undistrubed after the firing until the kiln is cold when it is carefully unpacked. Most of the red potteryware withstand heat from 600° C to 800° C. Firing mainly depends on the climate and the weather must be perfect before firing is commenced as no risk can be taken. A few showers can completely ruin the work of months. Two or three potters go into the kiln and arrange the articles, so that no cracking can take place. The pots are covered with straw and plastered over with mud leaving a small space at the bottom of the kiln to fire the articles. Heat is then applied for about 3 hours and the temperature is so regulated as to ensure that the bottom and the top receive the same amount of heat. When the top of the kiln has attained a brownish colour, the application of heat is discontinued. Strict watch is kept over the kiln to ensure that the temperature does not go beyond 900° C. Otherwise the vessels will crack. Without any temperature gauge, it is surprising to learn that the potters have become so dexterous as to predict the temperature of the kiln to the nearest degree based solely on experience. In one kiln as many as 1200 articles can be baked and the cost of one baking is roughly between Rs. 100 and Rs. 125/-. One peculiar thing about Karukurichi



Country Kiln



Improved Kiln

is that the potters do not have any cones to measure the temperature. Among the independent artisans, even spy-holes are not found and the usual way in which they measure the temperature of 900° C is when the deep brown blaze leaps out of the kiln. After allowing the vessels to cool for 12 hours, the kiln is opened and the articles carefully removed. Good wares are separated from broken bits. Pots which are to be Lacquer-coated are removed and sent to the master craftsmen.

LACQUER COATING AND IMPROVED POTTERY AT KARUKURICHI

Lacquer-coated pottery was introduced for the first time in 1957. Since its inception, Karukurichi pottery has managed to corner the market which was till then the monopoly of other potteryware and the demand for shellac-coated articles are so great that today production cannot match it. Shellac is used to coat fancy articles such as tea cups, tea kettles, flower vases and the speciality of this place, namely the Asoka Wheel Jar. The credit for introducing these new items should go to the Industries Department who took interest in the manufacture of fancy pottery. Initial trials were so successful that the Department was emboldened to try out new methods and introduce new designs. The new designs have to catch the eye of the public and have filled the potters in this place with great enthusiasm. The result is that the markets are now being supplied regularly with articles of novel design and fine finish. Prior to that the potters were producing ordinary pottery for daily use. In that year, the Ceramic Supervisor of the Unit had the oirginal idea of introducing lacquer coating for the pottery manufactured at this unit.

IMPROVED TECHNIQUE OF PRODUCTION FOR LACQUER COATED POTTERY

STAGE I

Preparation of Clay

In the manufacture of these articles, there are some changes in technique which will be discussed in the following paragraphs. The settled clay from the sedimentation tank is taken out by buckets, poured in gunny bags and allowed to dry. This drying process takes nearly 4 hours. By this process, a remarkably strong and acid resisting clay is produced which never loses its shape when fired.

STAGE II

Throwing

This prepared clay is thrown on the improved potter's wheel. The potter sits in front of his wheel and sets the wheel in motion by giving a vigorous turn with the help of a long bamboo stick. For this improved wheel, there is no necessity to have any assistance of another worker. Slowly and steadily, the master potter presses his hand inside the lump of clay and freely uses his fingers for shaping of curves. This improved potter's wheel is known as Kallupatti wheel because it is manufactured at the Kallupatti Gandhi Ashram in Tirumangalam taluk of Madurai district. This wheel is very popular and is being used more and more by potters all over the State. It costs about Rs. 100/-. The only cycle-driven wheel brought from Dharwar is not very popular and the potters of Karukurichi do not have much experience in using it.

STAGE III

Shaping

For fancy articles, the potter sits on a wooden stool facing the wheel and beside him he has a heap of purified clay, a basin of water, a stick and a piece of cloth. He sets the wheel in motion and squeezes the lump of clay with both hands after throwing it on the wheel. With the left hand inside the cup and the right hand outside, the master potter gives some finishing touches. As if by magic an article springs up on the wheel. It is removed from the wheel by cutting it with the help of a string and allowed to dry.

STAGE IV

Designs

In addition to a variety of enchanting, decorative lacquered objects of modern designs, traditional utility designs also are being made today at Karukurichi. Some of the vessels of daily use such as Koojas with animal heads, tea-cups and cooking utensils are excellently designed to suit the taste of all. In ordinary red pottery, much progress has not been made to create new and modern designs. All the potters have turned to modern and fancy lacquer-coated articles.

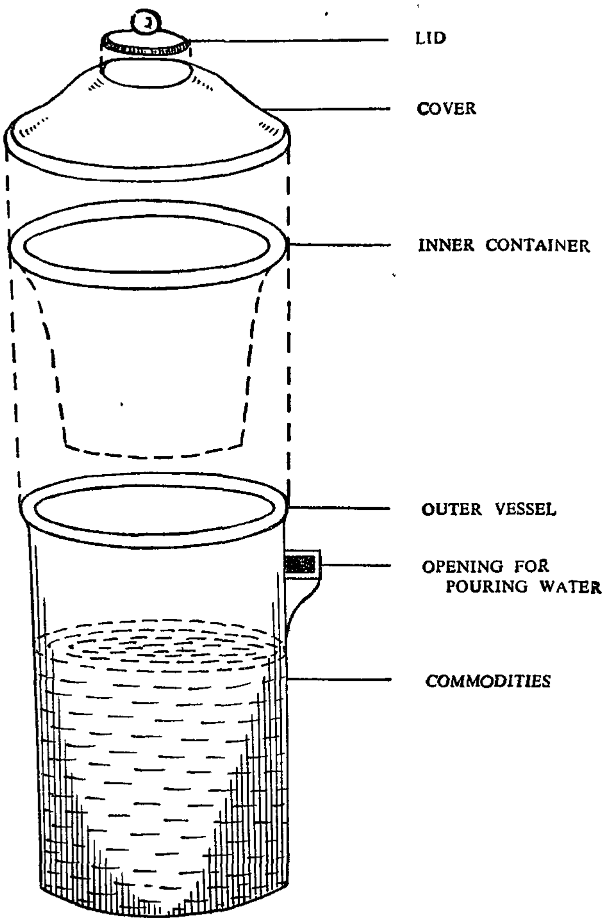
Some of the designs are superbly finished. These exquisite hand-made articles are produced only with a handful of mud coupled with the skill of the potter's finger. The Asoka wheel jar, Fancy kooja and mud refrigerator are very attractive, yet so cheap.

Out of the number of fancy articles, prominent among them being the Asoka wheel jar and Refrigerator, they will be described in the following lines.

Asoka Wheel Jar

For this design smooth and purified clay is suitable as it retains its plasticity. Clay is thrown on the

POOR MAN'S REFRIGERATOR



improved potter's wheel and one side of the plate is manufactured. This is cut out and dried for half an hour. After that it is taken and placed on a potter's wheel which will have a clay cylinder to hold fast the plate. The plate is then treated to acquire a rounded shape and once again removed and allowed to dry for an hour. Meanwhile, the master potter with the help of the mould makes a lion's head which forms the spout for the jar, and handle to fix it to these round plates, and dries it for an hour. With the help of a knife, he then carves out the requisite design on the round plates and also gives finishing touches to the lion's head and handle. After all the finishing touches are given, the article is wrapped in a gunny bag and kept in the shade to dry for 2 or 3 days. This wrapping is done to remove superfluous moisture and as a precaution against cracking. The vessel is then fired and coated with shellac.

Refrigerator

The outer vessel of various sizes is usually made of country clay, as this clay is more porous and water is cooled more.

The basement of the Refrigerator which is more than an inch in thickness is prepared separately on the wheel and attached to the bottom to make it unshakable. The handles for both sides and the holes for pouring water are separately made and fixed to the outer vessel and allowed to dry for many days as the wall is too thick to dry early.

Then the inner container where vegetables, fruits, eggs etc. are kept is made out of washed clay which will not affect the above commodities as this purified clay has little poracity. The method of manufacturing the inner container on the wheel is simple. When $\frac{3}{4}$ of the container is made it is taken out and dried for $\frac{1}{2}$ an hour, turned again and loaded on the wheel to cover the bottom and allowed to dry for 4 days. The last item of the Refrigerator is cover which is made out of country clay with a lid over it.

The Refrigerator needs four important items. First the inner container must have little porosity. Otherwise the commodities kept inside will be spoiled. Secondly it must be free from Lacquer-coating as it will kill the system of cooling. Thirdly there must be gap between the outer vessel and the inner container for the water to remain and to make the articles cool. Lastly water must be changed frequently.

If the above four methods are followed, guarantee is given to the poor man's Refrigerator that the commodities placed inside will remain cool and fresh for 8 days.

STAGE V

Shaping

When the clay has acquired the required shape the vessels which are to be carved with designs will be handled with care. Taking a sharp bamboo piece, the article will be gently held in the left hand and the master potter works with the right hand. It is here that the skill of the master potter reaches its water-mark. With clear and correct impression of the design in mind, he proceeds to remove the unwanted clay by slowly pressing and squeezing the model with the help of his hand or a bamboo piece. Finally, the carved vessels are allowed to dry in the shade for a few hours.

STAGE VI

Red Ochre Coating

Red ochre is prepared by initially selecting well-matured red earth from the soil which should be

free from salinity and alkaline content. This red earth is soaked in water for ½ hour, solidified and dried for 10-15 days in a shady place. During these 15 days, the red ochre becomes hard and solid and has to be powdered well with a hammer. The formula to be adopted is as follows. A big pot of 20 litre capacity should be filled three quarters full with water, ¼ of the quantity of red orchre put into it and allowed to settle for 15 minutes. During this time, waste will settle down and the water is poured into another vessel in which also sediments are allowed to settle for ½ hour. Finally water from the second pot will be poured into a third and kept for 2 days for drying. The potter now takes the red ochre, mixes it with water and taking a cloth or some soft brush, soaks it in this ochre paint and coats the articles all round with the help of the cloth or the brush. After two coatings, he takes the article and allows it to dry in the sun for ½ to 1 hour. It is during drying that care has to be taken not to allow a single drop of water to fall on these articles lest the vessels, should crack.

STAGE VII

Lacquer Coating

Lacquer is purchased from Ranchi and Madras at Rs. 2/- per lb. The Cooperative Society buys 50 lbs of lacquer which is sufficient for one month. Lacquer is usually available in the form of chips which is dissolved in water and liquor ammonia. A medium sized tin containing 4½ lbs. of water is mixed with 2 ozs., of liquor ammonia and 1½ lbs., of lacquer chips are dropped into it and kept for 12 hours. This mixing is usually done in the evenings as lacquer requires to be stored away from strong light and heat. In the morning, the tin containing the solution is heated to a temperature of 60° C. The solution is then removed and cooled in the shade for ½ an hour. Now the solution is ready for coating. Eaeh vessel must be coated 3 times with the help of a soft cloth. After each coating, it must be allowed to dry for 15 minutes. When the coating is complete the vessels are removed for a second firing in a small kiln made out of a drum possessed by the Cooperative Society which will hold 75 to 100 articles. The kiln is about 4′ in height and the drum is surrounded by clay and bricks. 2 persons are enough to handle the kiln. The cost of this kiln is about Rs. 30/-. The shellac-coated articles are fired in this kiln for 3 hours. The temperature is slowly increased till it reaches 130°C and then firing is stopped and the articles are allowed to cool inside the kiln. Not much of damage to articles occur in the second baking because of the low temperature which can be easily controlled due to the smallness of the kiln and the lesser number of articles which are placed in this kiln. The kiln is then opened, the articles are removed and finishing touches are given. Any roughness existing in the articles is removed by gently polishing it with a soft brush.

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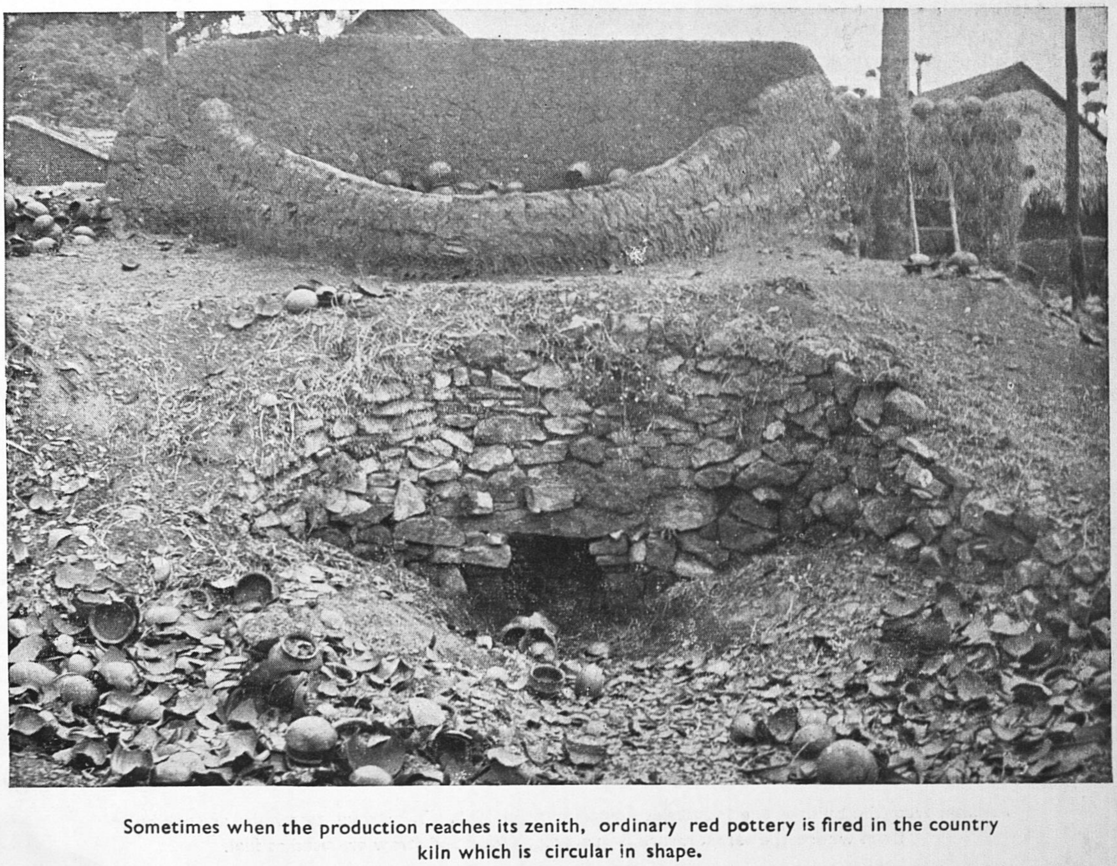
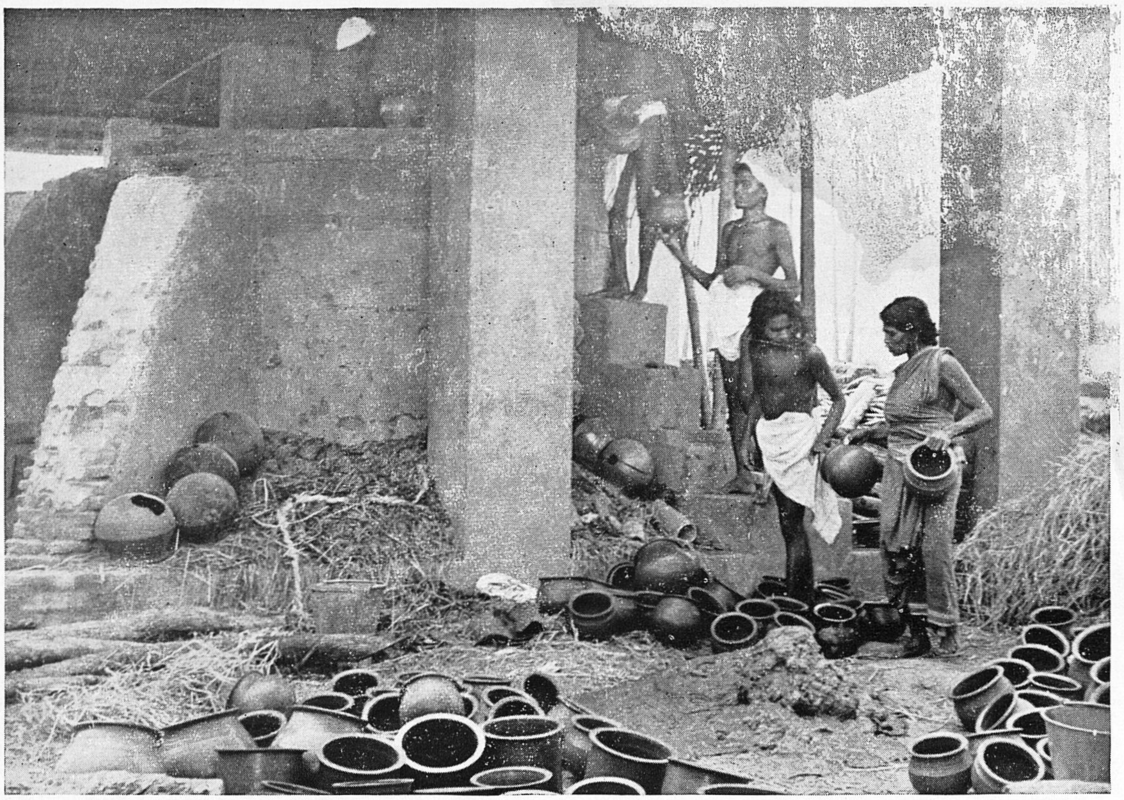
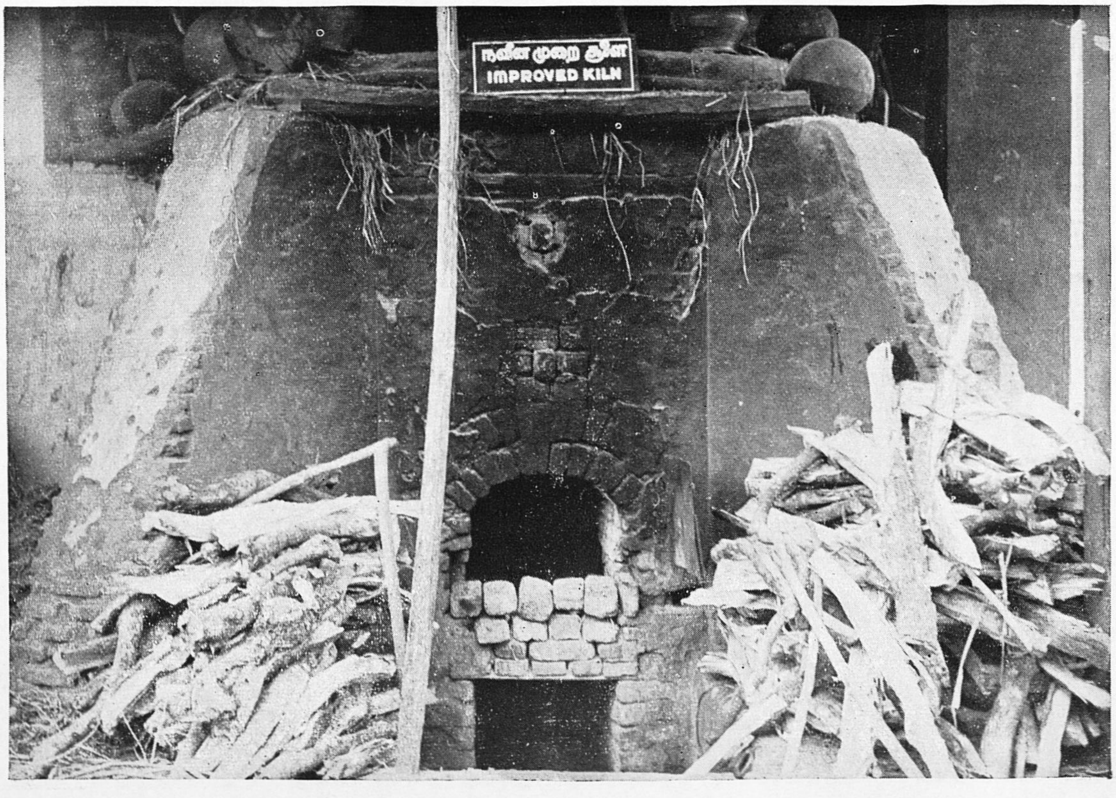
When the beaten vessels are dried they are taken out and the liquid having the colour of red ochre is applied uniformly by women potters.



Sometimes when the production reaches its zenith, ordinary red pottery is fired in the country kiln which is circular in shape.



Males and females are engaged in supplying finished goods to the other mates, who are arranging pots in the kiln. This kiln is built at a cost of Rs. 2,000/- by the Industries Department.



An improved kiln built by the Industries Department in 1962. The above two holes are spy holes from where the temperature is guaged. Wood and straw are used as fuel.

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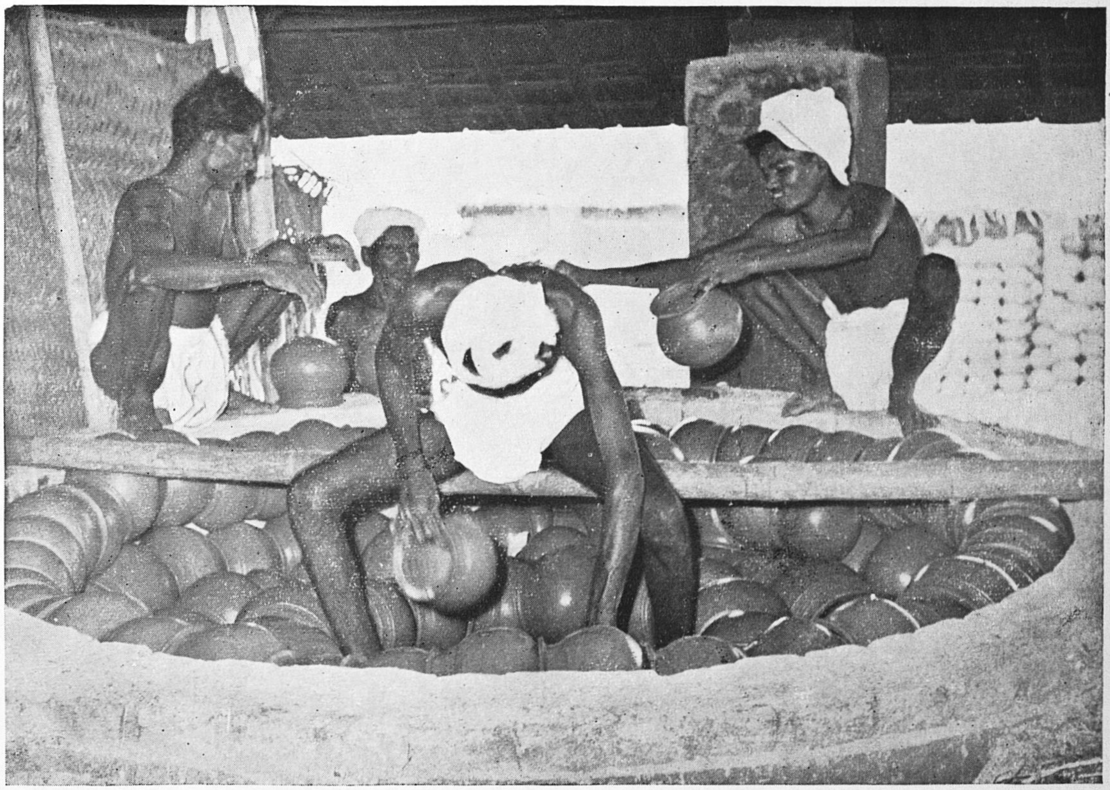
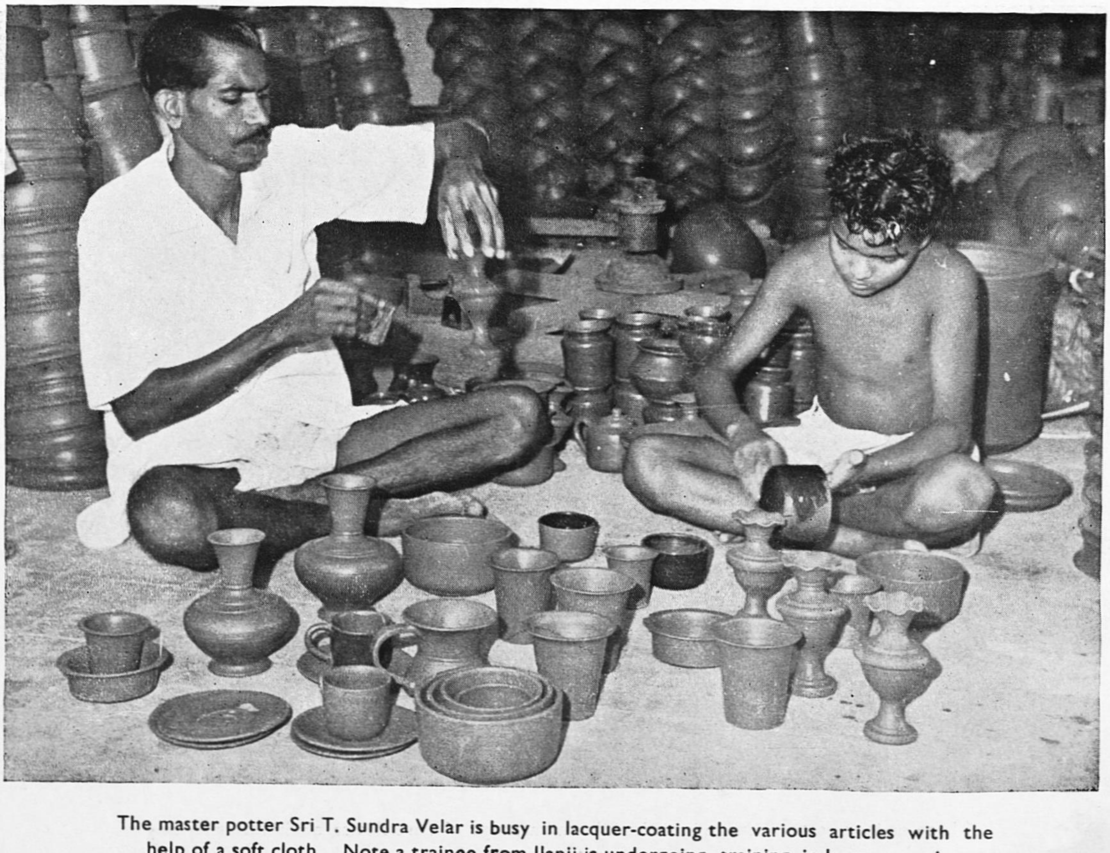
MADRAS

It is really a grand sight to see a row of potters carrying various vessels in their hands to place it carefully in the kiln for firing.



Three or four potters plunge into the kiln and arrange the articles carefully in such a way that no crack can take place.

Though not popular with the Karakurichi potters, with full enthusiasm and excitement the two trainees from Ilanji Co-operative Society are trying to master the art on this cycle-driven wheel.



The master potter Sri T. Sundra Velar is busy in lacquer-coating the various articles with the help of a soft cloth. Note a trainee from Ilanji is undergoing training in lacquer coating under the master potter.

ECONOMICS OF PRODUCTION

CHAPTER III

It is only after taking all the pottery units in its jurisdiction that The Khadi and Village Industries Commission came forward with assistance and selected this particular village, as pottery was its occupation for several centuries. Grey, red and sandy clay are found side by side and the products of Karukurichi gained much appreciation in traditional as well as in modern designs due to the peculiar quality of clay. It is plastic by nature and shrinks well when dried and shrinks more when fired and becomes very hard. At present these potters are manufacturing fancy lacquer-coated articles along with the ordinary ones.

Both types of articles are in good demand which depends on the personal inclination, utility, ceremonial needs and seasonal variations. But in some months e.g. Pongal and Onam, corresponding to January and September, demand for red pottery shoots up by 70% and lacquer-coated by 30%. During these months supply cannot keep up with the demand. It is a common feature to find that after unloading the articles from the kiln, they hardly remain for more than 2 weeks. Table 11 indicates the cost of production of some of the famed articles, profits and sales in the society. Following is the table of marginal profits for some of the articles which are in good demand.

Articles	Cost price for one article	Selling price for one article	Net Profit for one article
Special Kooja	0.23	0.31	0.08
Refrigerator	6.00	8.50	2.50
Asoka Wheel Jar	1.60	2.25	0.70
Fancy Kooja	0·76	1.25	0.49
Hanging Pot	0.17	0.31	0.14

Out of the 51 potters in the Cooperative Society, 10 have a good working knowledge of the manufacture of lacquer-ware and it is hoped that in a year or two, almost all the potters will be trained in this particular type of production. When compared to glazed articles, they are cheap possessing utilitarian value. The following table indicates the production of lacquer-ware and the profit earned by the Cooperative Society since 1957.

Year	Production	Sales	Profit
	Rs.	Rs.	Rs.
1957-58	13,384	14,257	873
1958-59	17,593	19,619	2,026
1959-60	20,646	23,414	2,768
1960-61	21,274	24,507	3,233
1961-62	25,402	26,450	1,048
Upto July 1962	9,338	12,464	3,126

The above figures indicate that the Society is gaining more profit year by year and that the production is also on the increase. Within 5 years, production has nearly doubled and has also kept pace with the demand. The years 1960-62 have seen large profit and within 5 months in 1962, the value of production has reached the figure of Rs. 9,000. At the time of the survey, it was found that the work on Chettis (cooking utensils) and koojas were in full swing as these articles had good sales value in Kerala, especially during Onam time. It was stated that August and September are the two months when production is unable to keep pace with demand and nearly 4000 to 5000 rupees worth of goods are sold annually. The articles of Karukurichi are normally displayed in exhibitions and in one such exhibition at Nagercoil in 1962, 4000 rupees worth of goods were sold. The real difficulty seems to be the lack of space for storing clay. The independent potters have some difficulty in selling their finished goods; but because of the great demand, they themselves go and sell their goods at Shermadevi and other places near to their village. It will be, however, worthwhile for them also to join the Cooperative Society and thus present an organised front.

Wages

The potters of Karukurichi are socially and economically better off when compared to Karigiri potters and potters elsewhere in the State. The wages are normally based on mutual agreement. Upto the stage of coating with red ochre, the work devolves entirely on the potter and so wages are paid on what he produces from the raw material given to him from time to time by the Society. For baking and lacquer-coating, wages are calculated on each item of work individually and paid to the potters once in a week. For ordinary vessels, where tapping or beating is necessary, each male

worker gets the assistance of two women. Usually, these women are from his own family and he rarely employs others on daily wages. In one day, along with the help of two women, a potter will produce 200 cooking utensils capable of containing one Madras measure. The wage for one Chetti or pot upto the coating of red ochre is 3½ P. If he works for 8 to 10 hours per day, he will get Rs. 4/- and each woman Rs. 1.50/-. The wage rate increases according to the size of the pot. Thus the average income per potter per day varies from anything between Rs. 3 to Rs. 4 and for ladies, between Rs. 1.25 to Rs. 1.50. Thus, a family of the Karukurichi potter will earn anywhere upto Rs. 150/- per month. The following are the various wages for the different kinds of articles :—

	Name of article	Wages for one article (From wheel work to red ochre coating) Rs. P.	Total production per day	Tapping or without tapping
1.	One measure Madras chetti	0 3½	200	Tapping
2.	Two measures chetti	0 05	120	„
3.	Kooja (small)	0 10	50	„
4.	Kooja with animal head	0 50	15	tapping
5.	Chimney pipe (1′ long)	0 09	50	Without tapping
6.	Mahansholla	1 00	5	„
7.	Asoka wheel jar	1 00	3	„
8.	Refrigerator special	3 00	2	„
9.	Refrigerator ordinary	1 50	3	„
10.	Tea kettle	0 25	25	„
11.	Tea cup	0 10	40	„
12.	Cup and saucer (one set)	0 10	30	„

It is clear from this wage structure that the potters are more well-settled and much better off compared to some of the other artisans engaged in the pursuit of other avocations. The following statement indicates the comparative affluence of the potter of Karukurichi vis-a-vis other artisans who live in the same village.

	Monthly average income Rs.
Ordinary potters	70–90
Improved pottery	100–150
Carpenter	60
Blacksmith	50
Goldsmith	50
Dhobi	60
Barber	40

The tools of the potter are simple and can be purchased locally at a total cost of Rs. 40/. From the survey conducted about their living conditions and abodes, it is found that even though they live in huts these are quite neat and compact and they are satisfied with their living conditions. Their only desire is to acquire some land near the Cooperative Society to build a store hall and use it to store their clay. Of late some land was acquired and a new workshed put up at a cost of nearly Rs. 10,000 to accommodate the potters at work. There is a bright future for this profession as no one has left his traditional occupation in favour of other work even though seven tile factories have sprung up within a radius of one mile. This was the case among all the 25 families. They are interested in manufacturing glazed pottery-ware, but say that there are no proper facilities.

Training of Artisans

Pottery is a hereditary craft and son and daughter learn it at the feet of the father and mother. Deftness and dexterity run in their blood and even at a young age the son of a potter sits beside his father's wheel learning to revolve the wheel. By gradual stages, he picks up rudiments of skill, helps his father to cut the vessel from the wheel, dry it and then during the next stage he learns to pack them in the kiln, to fire and to remove the articles. From this stage he progresses to manufacture small pots which do not call for much skill. Then he picks up the work rapidly and within 5 to 8 years he becomes a good craftsman. But this skill which is inborn and which he assiduously trains is only for the normal red pottery — pots and pans which are part and parcel of village life. For the production of improved pottery and fancy articles, even a good potter must necessarily have specialised training. The Potters of Karukurichi were for a long time manufacturing only the ordinary varieties of pots and pans. After the Khadi and Village Industries Board took active interest in introducing new patterns to develop production and make the centre famous, a master potter was appointed in May 1962 to guide and train his co-workers or members of the Society. This master potter hails from the same village and had training in the Model Pottery Training Centre at Karukurichi and then proceeded for higher training in

Village Pottery Training Institute at Naduvannur in Kerala State. He was earning Rs. 170/- a month. But so much is his devotion to duty and his desire to improve the lot of his co-workers that he has taken up a job as a skilled craftsman in the Cooperative Society on a monthly salary of Rs. 90/- paid by the Khadi and Village Industries Board. Necessarily he is precluded from working on his own and therefore does not have a side income. We had occasion to talk with him and we were struck by his zeal and devotion. In this pottery training centre, batches of potters are trained and more artisans are selected from this village and surrounding villages and deputed to other Cooperative Societies to learn improved techniques of production. In the month of August 1962, a batch of 4 potters were deputed from the Ilanji Cooperative Society to Karukurichi to be trained in improved methods of production with the help of the ball-bearing wheel and in the art of lacquer-coating. The cost of the scheme is met from Block funds under the heading "Rural arts and crafts and industry". A sum of Rs. 744/- was sanctioned for the 4 trainees as follows:

Stipend at Rs. 30/- p.m. each for 6 months	Rs. 720/-
Train fare	Rs. 24/-
	Rs. 744/-

The main training is in the art of lacquer-coating and the production of fancy articles. The trainees after the necessary training, go back to their Cooperative Societies and transmit the knowledge acquired to their brethren in various places.

Cooperative Societies

Before the establishment of the Cooperative Society, the potters of Karukurichi were producing only domestic wares which were purchased in bulk by the merchants of Kerala and Tirunelveli. These merchants used to come during the busy seasons of August and September and purchase the goods at a cheaper rate, having earlier advanced money to the potters to tide over financial crisis during the lean months. The articles had to be stored in the potter's house and there used to be loss due to breakages quite frequently till the merchant's arrival in the village. Thus, there were two problems of finding a good price and of storing the articles until the busy season.

Seeing the difficulties which the Karukurichi potters faced, the nearby Thenpothai Production Cooperative Society advised the potters of Karukurichi to form a Society of their own which they readily agreed to. Thus was born the Karukurichi Potter's Cooperative Society on 4-11-1955. It had a humble beginning and was housed in a small shed about 2 furlongs from the place in which the present imposing building is situated. The following Table indicates the gradual increase in the number of members with their share capital.

Year	Members	Share Capital Rs.
1955 — 56 } 1956 — 57 }	33	820
1957 — 58	36	1,885
1958 — 59	51	1,965
1959 — 60	52	2,760
1960 — 61	50	2,920
1961 — 62	51	3,135
Upto July 1962	51	4,625

Yet another landmark in the history of Karukurichi pottery was the starting of a Model Pottery Production Centre between Karukurichi and Kuniyur on the main trunk road between Shermadevi and Shencottah in 1957 by the Director of Industries and Commerce. The Cooperative Society which was functioning in the main potters' street was attached to this Model Production Centre so as to improve the quality of the products and train the local potters in new techniques and in the adaptation of modern designs. A Ceramic Supervisor was also appointed to train the potters on a monthly salary of Rs. 120/- paid by the Khadi and Village Industries Commission.

In 1960, the Model Pottery Production Centre was merged with the Karukurichi Cooperative Society and the control was transferred from the Director of Industries and Commerce to that of the Khadi and Village Industries Commission. This was a step in the right direction as it was then possible to popularise the products manufactured at the centre on an All India basis. The following are the sources from which the Cooperative Society received grants or loans for various purposes.

Date	*Loan* Rs.	*Grant* Rs.	*Particulars*
21- 2-56	3,000		Community Project
4- 6-58	4,000		Government
16- 4-58	150	150	Government (Improved tools)
20-12-57		2,227	Establishment & contingency (Khadi & Village Industries Commission)
17- 2-59		2,000	Building grant from Block Development Officer, Shermadevi.

Date	Loan	Grant	Particulars
30- 8-62	4,500		Working capital by Khadi & Village Industries Board.
21- 3-62	4,500		Construction of common work-shed (Khadi & Village Industries Board
3- 4-62		1,555	Sales and Establishment grant.

After the inception of the Society late in 1955, a thatched shed of area 1,200 sq. ft. was constructed in 1957 at a cost of Rs. 2,000/- by the Industries Department for running a model pottery centre. It was subsequently handed over to the society free of cost on 1-4-1960. The tiled shed to the east of this thatched shed was constructed in the year 1960 at a cost of Rs. 5,000/- of which Rs. 2,000/- was sanctioned as grant from the Cheranmahadevi Block funds and the balance of Rs. 3,000/- was met by the society from its general funds. The area of this building is 1,000 sq. ft. In spite of the 2,200 sq. ft. available, the potters found that this space was insufficient to store the clay and the finished goods. They also wanted an additional work-shed. To the west of the thatched shed was an open space of 20 cents classified in the revenue records as cattle stand poramboke of Kuniyoor village. The Cooperative Society petitioned the Government for assignment of this piece of land in their favour. But this was objected to by the Panchayat on the ground that the land was required for the specific purpose as registered in the revenue records. However these objections were partially over-ruled and whilst alienation or assignment was not done, the Sub-Collector Cheranmahadevi issued orders permitting the Society to construct a work-shed on the land. The work was started in 1961 and completed in 1962. A pucca work shed of area 4386 sq. ft. has been constructed at a cost of Rs. 11,000/-. Of this, the Khadi and Village Industries Board, Madras sanctioned a loan of Rs. 4,500 and a grant of Rs. 4,500/-. The balance of Rs. 2,000/- was met by the Society from its general funds. This is an imposing building and the interior consists of a long hall capable of accommodating 100 workers. There is another piece of land adjacent to this building—part of the cattle stand poramboke—which the potters are interested in bringing under their control for constructing a small shed to store their clay and put up clay pits.

Out of the 25 families in Karukurichi, we have already stated that 3 families of 10 persons are not members of the Society while 51 of the village potters are engaged in the production unit of the Society. As there is not sufficient space for all the members to assemble and work in the cooperative society premises, some are forced to work with their families after fetching the raw materials from the Society in their own houses. Through the cooperative society, the members are much benefitted. Superior quality of clay, various raw materials and tools are supplied and they are allowed to work in their own homes. The potters are trained in modern designs and many have switched over from ordinary pottery to lacquer-coated pottery. It will not be surprising if they happen to master the art of glazed pottery and display their high skill within a few years. There is a master potter and expert to suggest designs and colours to suit the changing taste and fashions of modern era. Above all, they are free from marketing problem. The society takes the articles and wages are paid by it.

It is said that due to some misunderstanding between them and the others, three families withdrew from the membership. The misunderstanding has been amicably settled to the satisfaction of both the parties and they may once again enroll themselves as members. In fact, the Cermic Supervisor is doing his level best to convince them and make them enroll once again as members.

The chief function of the cooperative society is to bring the raw material from the various tanks, to collect 6 nP. per rupee as thrift deposit and to transfer the amount into one share capital when the deposits have reached the figure of Rs. 5.25/-. If any member is in need of money, a sum of Rs. 50/- is advanced to him as loan without any interest which has to be repaid in three monthly instalments. The wages are distributed according to the quantity and quality of work turned out by the potters. Finally, it has to find a good market for the wares produced by its members. It has to find a market not only for the ordinary variety of pottery, but also for the lacquer-coated fancy articles.

Marketing

Even though in the district of Tirunelveli, red as well as black pottery wares are manufactured in many cooperative societies such as at Thenpothai, Sankarankoil, Tenkasi, Kovilpatti and Vannarpet, the fame of Karukurichi pottery remains unrivalled and so marketing poses no problem to the Society and it has a steady sale in Tirunelveli, and Kerala as well as the various emporia set up by the Khadi and Village Industries Board and the Department of Industries and Commerce. Since it is also the only centre where lacquer-coated articles are produced on a large scale, these articles are sold like hot cakes. Among the main marketing centres of

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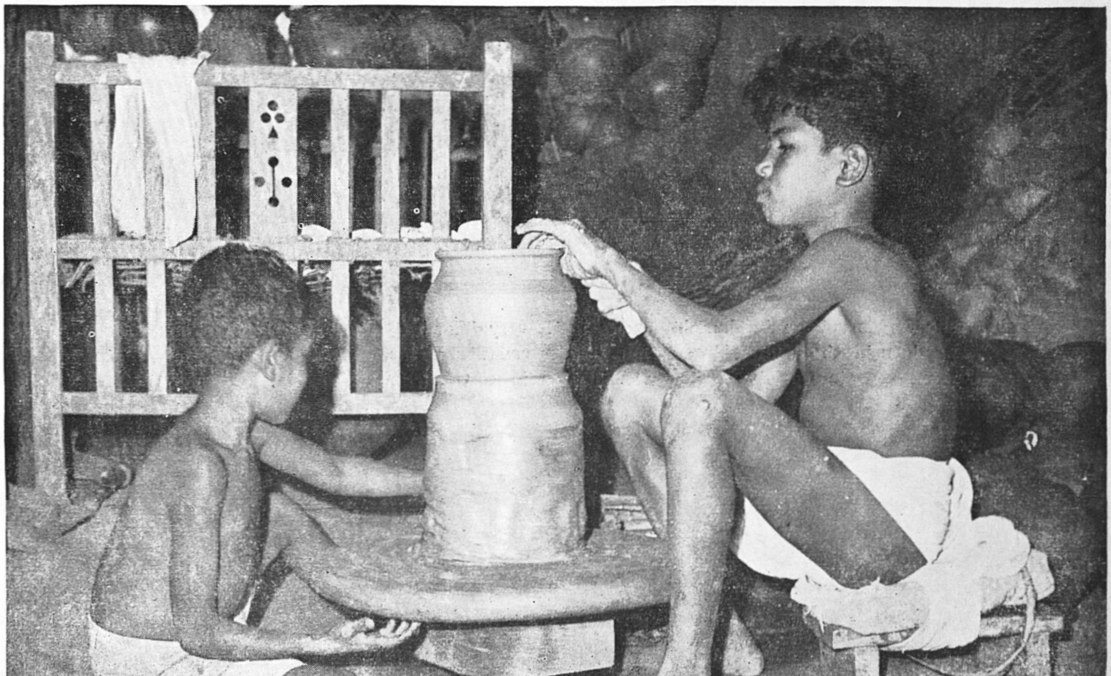
Number of Lacquer-coated fancy articles are on display—prominent among them are Ashoka wheel jar, Kooja with cow's head, a medium size pot with lion's head, and cups and saucers.



The trainees from Ilanji Co-operative Society undergoing training in Karakurichi Co-operative Society in improved methods of production.

Due to heavy demand the Karakurichi potters find it very difficult to store the clay and finished products in the sheds. Note various articles are filed up inside the compound of the Co-operative Society without any protection from sun or rain.

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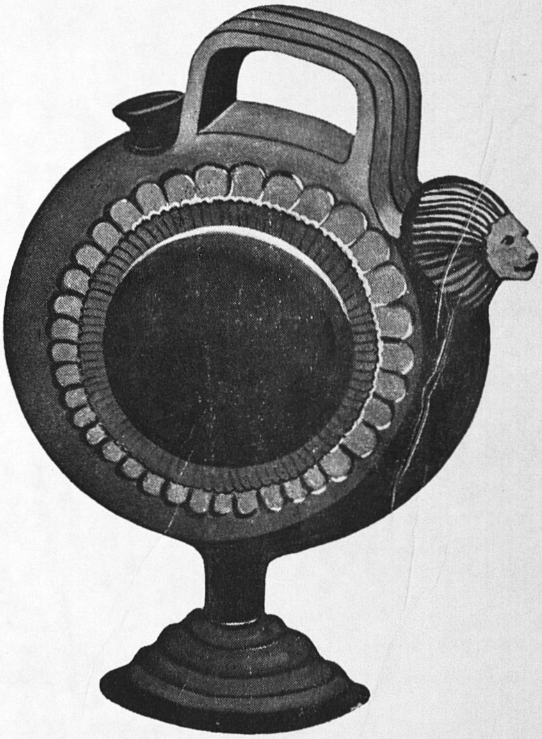
Kooja with cow s head



Ashoka Wheel jar

Poor man's Refrigerator

Kerala where these wares are sold, mention may be made of Quilon, Varkala and Wyanad and in Tirunelveli district, Tirunelveli, Tuticorin, Tiruchendur, Kovilpatti, Ambasamudram and Tenkasi. The private merchants still rank among the foremost of the buyers. They come to Karukurichi during August and September in large numbers, inspect the goods, select them and return to their homes. The Society makes arrangements to despatch the goods on the date fixed by both the parties. The vessels are sent by lorries or by cart-loads depending on the distance to be travelled and the parties bear the transport charges. The demand is the heaviest during the festivals of Onam and Pongal.

Conclusion

With the enthusiasm displayed by the potters and the new and improved designs frequently introduced by the centre situated here, the potters of Karukurichi seem to have a bright future.

Appendix I

KILN PARTICULARS

Name of article	Quantity taken to kiln	Damaged	Quantity taken from kiln
No. 1 Pots	250	...	250
No. 1½ Pots	70	...	70
No. 2 Pots	27	8	19
No. 2½ Pots	51	6	45
No. 3 Pots	50	18	32
No. 4 Pots	34	14	20
No. 5 Pots	66	9	57
No. 6 Pots	20	4	16
No. 7 Pots	5	1	4
No. 8 Pots	4	...	4
Magan chula	10	...	10
Special kooja	12	1	11
Cup and Saucer	5	...	5
Tiffin cup	11	...	11
Jar III	20	3	17
Theksha	102	...	102
	737	64	673

	Rs. P.
Value of goods as per market rate (after deducting for damages)	111.84

EXPENDITURE

1. Wages paid for 737 articles	61.24
2. Clay issued	5.00
3. Cost of firewood	11.50
4. 1 Bundle of straw	1.25
5. Kiln loading & unloading charges	7.00
6. Supervision charges	5.00
	90.99

Value of goods	Rs.	111.84
Total expenditure	Rs.	90.99
NET PROFIT from one baking	Rs.	20.85

APPENDIX II

COST OF PRODUCTION OF FAMED ARTICLES OF KARUKURICHI

	Clay	Firing	Wages	Lacquer	Cost price	Sale price	Gain	Time
	Rs.nP.	Rs.nP.	Rs.nP.	Rs.nP.	Rs.nP.	Rs.nP.	Rs.nP.	
Tea Kettle	0.05	0.10	0.15	0.05	0.35	0.50	0.15	½ Hour
Kooja small special	0.02	0.08	0.10	0.03	0.23	0.31	0.08	½ Hour
Refrigerator	0.20	0.40	0.75	..	1.55	2.25	0.90	1 Hour
Refrigerator with tap	1.00	1.50	4.00	...	6.50	12.00	5.50	2 Hours
Asoka Wheel Jar	0.40	0.30	0.75	0.15	1.60	2.25	0.55	2½ Hours
Fancy Kooja	0.10	0.25	0.41	...	0.76	1.25	0.49	45 Minutes
Mohan Shollai	0.50	1.00	1.00	...	2.50	3.50	1.00	1½ Hours
Hanging Pot	0.02	0.05	0.10	...	0.17	0.31	0.14	¼ Hour

Appendix III

NAME OF THE SKILLED ARTISANS

1. P. Sundara Velar (Master Potter)
2. A. Sankaranarayan
3. R. Sethuramalingam
4. P. Ponnuswamy
5. P. Swamy Velar
6. C. Piramuthu Velar
7. P. Ganapathy Velar
8. P. Valainandam
9. P. Ramalingam
10. P. Chokkalingam

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